

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta}$ (°C/W)	Notes	Package
16TTS08S	800	16	10	98	170	175	2	45	1.4	10	500	1.3	1	D <sup>2</sup> Pak
16TTS12S	1200	16	10	98	170	175	2	45	1.4	10	500	1.3	1	D <sup>2</sup> Pak
16TTS16S	1600	16	10	98	170	175	2	45	1.4	10	500	1.3	1	D <sup>2</sup> Pak
25TTS08S	800	25	16	94	210	220	2	45	1.25	16	500	1.1	1	D <sup>2</sup> Pak
25TTS12S	1200	25	16	94	210	220	2	45	1.25	16	500	1.1	1	D <sup>2</sup> Pak
25TTS16S	1600	25	16	94	210	220	2	45	1.25	16	500	1.1	1	D <sup>2</sup> Pak
<b>TO-220AC</b>														
16TTS08	800	16	10	98	170	175	2	45	1.4	10	500	1.3		TO-220AC
16TTS12	1200	16	10	98	170	175	2	45	1.4	10	500	1.3		TO-220AC
16TTS16	1600	16	10	98	170	175	2	45	1.4	10	500	1.3		TO-220AC
25TTS08	800	25	16	94	210	220	2	45	1.25	16	500	1.1		TO-220AC
25TTS012	1200	25	16	94	210	220	2	45	1.25	16	500	1.1		TO-220AC
25TTS16	1600	25	16	94	210	220	2	45	1.25	16	500	1.1		TO-220AC
<b>TO-247AC (TO-3P)</b>														
40TPS08	800	55	35	85	335	350	2.5	150	1.43	40	500	0.6		TO-247AC (TO-3P)
40TPS12	1200	55	35	85	335	350	2.5	150	1.43	40	500	0.6		TO-247AC (TO-3P)

### NOTES:

- |  |   |  |   |
|--|---|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|---|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	@ $T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	@ $I_{TM}$ (A)	dv/dt (V/μs)	$R_{\theta}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

TO-247AC (TO-3P)

40TPS16	1600	55	35	85	335	350	2.5	150	1.43	40	500	0.6		82107
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### NOTES:

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|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 dv/dt exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 dv/dt linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 dv/dt exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
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## Thyristors

### TO-208AA (TO-48)

10RIA10	100	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA20	200	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA40	400	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA60	600	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA80	800	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA100	1000	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
10RIA120	1200	25	10	85	190	200	2	60	1.75		300	1.85	2 3 4 5 6	30060
2N681	25	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
2N682	50	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
2N683	100	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA10	100	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
2N684	150	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
2N685	200	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA20	200	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
2N686	250	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
2N687	300	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081

### NOTES:

- |  |  |  |   |
|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 dv/dt exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 dv/dt linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 dv/dt exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
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# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	dv/dt (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

TO-208AA (TO-48)

2N688	400	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA40	400	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
2N689	500	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA60	600	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
2N690	600	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
2N691	700	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA80	800	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
2N692	800	25	16	65	145	150	2	40	2		250	1.5	2 3 4 5	30081
16RIA100	1000	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
16RIA120	1200	35	16	85	285	300	2	60	1.75		300	1.15	2 3 4 5 6	30060
16RIA140	1400	35	16	80	190	200	2	60	1.8		300	1.15	2 3 4 5 6	30060
16RIA160	1600	35	16	80	190	200	2	60	1.8		300	1.15	2 3 4 5 6	30060
22RIA10	100	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
22RIA20	200	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
22RIA40	400	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
22RIA60	600	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
2N5204	600	35	22	40	285	300	2	40	2.3		250	1.5	2 3 4 5	30081

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100%  $V_{RRM}$  reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{GT}$ ,  $V_{GT}$ :  $T_j = 25^\circ\text{C}$
- $V_{TM} @ \pi \times I_{T(AV)}$ ,  $T_j = 125^\circ\text{C}$
- dv/dt exponential to 0.67  $V_{DRM}$ .  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- dv/dt linear to 0.8  $V_{DRM}$ ;  $T_j = 125^\circ\text{C}$
- dv/dt exponential to 100%  $V_{DRM}$ ;  $T_j = 125^\circ\text{C}$
- $V_{TM}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	dv/dt (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

TO-208AA (TO-48)

2N5205	800	35	22	40	285	300	2	40	2.3		250	1.5	2 3 4 5	30081
22RIA80	800	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
2N5206	1000	35	22	40	285	300	2	40	2.3		250	1.5	2 3 4 5	30081
22RIA100	1000	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
2N5207	1200	35	22	40	285	300	2	40	2.3		250	1.5	2 3 4 5	30081
22RIA120	1200	35	22	85	335	355	2	60	1.7		300	0.86	2 3 4 5 6	30060
22RIA140	1400	35	22	80	285	300	2	60	1.8		300	0.86	2 3 4 5 6	30060
22RIA160	1600	35	22	80	285	300	2	60	1.8		300	0.86	2 3 4 5 6	30060
25RIA10	100	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA20	200	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA40	400	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA60	600	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA80	800	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA100	1000	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA120	1200	40	25	85	350	370	2	60	1.7		300	0.75	2 3 4 5 6	30060
25RIA140	1400	40	25	80	335	350	2	60	1.8		300	0.75	2 3 4 5 6	30060
25RIA160	1600	40	25	80	335	350	2	60	1.8		300	0.75	2 3 4 5 6	30060

### NOTES:

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| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j=T_j \text{ max.}=125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j=125^\circ\text{C}</math></p> | <p>5 dv/dt exponential to 0.67 <math>V_{DRM}</math>. <math>T_j=25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.</p> <p>7 dv/ dt linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 dv/dt exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j=T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
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## Thyristors

														TO-208AC (TO-65)
50RIA10	100	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA20	200	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA40	400	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA60	600	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA80	800	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA100	1000	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA120	1200	80	50	94	1200	1255	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA140	1400	80	50	94	900	942	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
50RIA160	1600	80	50	94	900	942	2.5	100	1.6		500	0.35	2 3 4 6 15	30062
														TO-208AD (TO-83)
2N1800	600	110	70	65	955	1000	2.5	70	1.85	220	200	0.4	2 3 4 7 8 9	30082
2N1801	700	110	70	65	955	1000	2.5	70	1.85	220	200	0.4	2 3 4 7 8 9	30082
2N1802	800	110	70	65	955	1000	2.5	70	1.85	220	200	0.4	2 3 4 7 8 9	30082
2N1803	900	110	70	65	955	1000	2.5	110	2	220	200	0.4	2 3 4 7 8 9	30082
2N1804	1000	110	70	65	955	1000	2.5	110	2	220	200	0.4	2 3 4 7 8 9	30082

### NOTES:

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## Thyristors

															<b>TO-209AC (TO-94)</b>
80RIA40	400	125	80	85	1600	1675	2.5	120	1.4	250	500	0.3	2 3 4 6 7 9 12 13	30085	
80RIA80	800	125	80	85	1600	1675	2.5	120	1.4	250	500	0.3	2 3 4 6 7 9 12 13	30085	
80RIA120	1200	125	80	85	1600	1675	2.5	120	1.4	250	500	0.3	2 3 4 6 7 9 12 13	30085	
															<b>TO-209AC (TO-94)</b>
110RKI40	400	172	110	90	1750	1830	2	100	1.5	350	500	0.27	2 3 4 6 7 9 12 13	25152	
110RKI80	800	172	110	90	1750	1830	2	100	1.5	350	500	0.27	2 3 4 6 7 9 12 13	25152	
110RKI120	1200	172	110	90	1750	1830	2	100	1.5	350	500	0.27	2 3 4 6 7 9 12 13	25152	
															<b>TO-209AC (TO-94)</b>
ST110S04P0V	400	175	110	90	2270	2380	3	150	1.52	350	500	0.195	2 3 7 10	25167	
ST110S08P0V	800	175	110	90	2270	2380	3	150	1.52	350	500	0.195	2 3 7 10	25167	
ST110S12P0V	1200	175	110	90	2270	2380	3	150	1.52	350	500	0.195	2 3 7 10	25167	
															<b>TO-209AC (TO-94)</b>
ST110S14P0	1400	175	110	90	2270	2380	3	150	1.52	350	500	0.195	2 3 7 10	25167	
ST110S16P0	1600	175	110	90	2270	2380	3	150	1.52	350	500	0.195	2 3 7 10	25167	
															<b>TO-209AB (TO-93)</b>
180RKI40	400	285	180	80	3500	3660	2.5	150	1.35	570	500	0.15	2 3 4 7 9 12 13	25153	

### NOTES:

- |  |   |  |   |
|--|---|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|---|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

180RKI80	800	285	180	80	3500	3660	2.5	150	1.35	570	500	0.15	2 3 4 7 9 12 13	25153
180RKI100	1000	285	180	80	3500	3660	2.5	150	1.35	570	500	0.15	2 3 4 7 9 12 13	25153
<b>TO-209AB (TO-93)</b>														
ST180S04P0V	400	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11	25165
ST180S08P0V	800	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11 16	25165
ST180S12P0V	1200	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11 16	25165
<b>TO-209AB (TO-93)</b>														
ST180S16P0	1600	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11 16	25165
ST180S18P0	1800	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11 16	25165
ST180S20P0	2000	314	200	85	4200	4400	3	150	1.75	570	500	0.105	2 3 4 6 7 9 11 16	25165
<b>TO-209AB (TO-93)</b>														
ST230S04P0V	400	361	230	85	4800	5000	3	150	1.55	720	500	0.1	2 3 4 6 7 9 11 16	25163
ST230S08P0V	800	361	230	85	4800	5000	3	150	1.55	720	500	0.1	2 3 4 6 7 9 11 16	25163
ST230S12P0V	1200	361	230	85	4800	5000	3	150	1.55	720	500	0.1	2 3 4 6 7 9 11 16	25163
<b>TO-209AB (TO-93)</b>														
ST230S14P0	1400	361	230	85	4800	5000	3	150	1.55	720	500	0.1	2 3 4 6 7 9 11 16	25163
ST230S16P0	1600	361	230	85	4800	5000	3	150	1.55	720	500	0.1	2 3 4 6 7 9 11 16	25163

### NOTES:

- |  |   |  |   |
|--|---|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|---|--|---|



# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

														TO-209AB (TO-93)
ST280S04P0V	400	440	280	85	6600	6900	3	150	1.28	880	500	0.105	2 3 4 6 7 9 11 16	25161
ST280S06P0V	600	440	280	85	6600	6900	3	150	1.28	880	500	0.105	2 3 4 6 7 9 11 16	25161
														TO-209AE (TO-118)
ST300S04P0	400	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST300S08P0	800	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST300S12P0	1200	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST300S16P0	1600	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST300S18P0	1800	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST300S20P0	2000	470	300	75	6730	7040	3	200	1.66	940	500	0.1	2 3 4 6 7 9 11	25158
ST330S04P0	400	520	330	75	7570	7920	3	200	1.51	1040	500	0.1	2 3 4 6 7 9 11	25156
ST330S08P0	800	520	330	75	7570	7920	3	200	1.51	1040	500	0.1	2 3 4 6 7 9 11	25156
ST330S12P0	1200	520	330	75	7570	7920	3	200	1.51	1040	500	0.1	2 3 4 6 7 9 11	25156
ST330S14P0	1400	520	330	75	7570	7920	3	200	1.51	1040	500	0.1	2 3 4 6 7 9 11	25156
ST330S16P0	1600	520	330	75	7570	7920	3	200	1.51	1040	500	0.1	2 3 4 6 7 9 11	25156

### NOTES:

- |   |   |  |   |
|---|---|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM}</math> @ <math>\pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|---|---|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta J-HS}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

														TO-200AA (A-Puk)
ST180C04C0	400	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST180C08C0	800	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST180C12C0	1200	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST180C16C0	1600	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST180C18C0	1800	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST180C20C0	2000	660	350	55	4200	4400	3	150	1.96	750	500	0.08	2 3 7 9	25164
ST230C04C0	400	780	410	55	4800	5000	3	150	1.69	880	500	0.08	2 3 7 9	25162
ST230C08C0	800	780	410	55	4800	5000	3	150	1.69	880	500	0.08	2 3 7 9	25162
ST230C12C0	1200	780	410	55	4800	5000	3	150	1.69	880	500	0.08	2 3 7 9	25162
ST230C14C0	1400	780	410	55	4800	5000	3	150	1.69	880	500	0.08	2 3 7 9	25162
ST230C16C0	1600	780	410	55	4800	5000	3	150	1.69	880	500	0.08	2 3 7 9	25162
ST280C04C0	400	960	500	55	6600	6900	3	150	1.36	1050	500	0.08	2 3 7 9	25159
ST280CH04C0	400	1130	500	80	6000	6300	3	150	1.35	1000	500	0.08	2 3 7 9 10	25160
ST280C06C0	600	960	500	55	6600	6900	3	150	1.36	1050	500	0.08	2 3 7 9	25159
ST280CH06C0	600	1130	500	80	6000	6300	3	150	1.35	1000	500	0.08	2 3 7 9 10	25160

## TO-200AB (E-Puk)

### NOTES:

- |  |   |  |   |
|--|---|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|---|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\Theta J-HS}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

TO-200AB (E-Puk)

ST300C04C0	400	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST300C08C0	800	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST300C12C0	1200	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST300C16C0	1600	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST300C18C0	1800	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST300C20C0	2000	1290	650	55	6730	7040	3	200	2.18	1630	500	0.04	2 3 7 9	25157
ST330C04C0	400	1420	720	55	7570	7920	3	200	1.96	1800	500	0.04	2 3 7 9	25155
ST330C08C0	800	1420	720	55	7570	7920	3	200	1.96	1800	500	0.04	2 3 7 9	25155
ST330C12C0	1200	1420	720	55	7570	7920	3	200	1.96	1800	500	0.04	2 3 7 9	25155
ST330C14C0	1400	1420	720	55	7570	7920	3	200	1.96	1800	500	0.04	2 3 7 9	25155
ST330C16C0	1600	1420	720	55	7570	7920	3	200	1.96	1800	500	0.04	2 3 7 9	25155
ST380C04C0	400	1900	960	55	12600	13200	3	200	1.6	3000	500	0.04	2 3 7 9	25168
ST380CH04C0	400	2220	960	80	10500	11000	3	200	1.58	2900	500	0.04	2 3 7 9 10	25169
ST380CH06C0	600	2220	960	80	10500	11000	3	200	1.58	2900	500	0.04	2 3 7 9 10	25169
ST380C06C0	600	1900	960	55	12600	13200	3	200	1.6	3000	500	0.04	2 3 7 9	25168
ST300C04L0	400	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157

TO-200AC (B-Puk)

### NOTES:

- |  |  |  |   |
|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j=T_j \text{ max.}=125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm} @ \pi \times I_{T(AV)}</math>, <math>T_j=125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j=25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{tm}</math> measured at <math>T_j=T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|--|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\Theta J-HS}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

TO-200AC (B-Puk)

ST300C08L0	800	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157
ST300C12L0	1200	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157
ST300C16L0	1600	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157
ST300C18L0	1800	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157
ST300C20L0	2000	1115	560	55	6730	7040	3	200	2.18	1635	500	0.05	2 3 7 9	25157
ST330C04L0	400	1230	650	55	7570	7925	3	200	1.9	1730	500	0.05	2 3 7 9	25154
ST330C08L0	800	1230	650	55	7570	7925	3	200	1.9	1730	500	0.05	2 3 7 9	25154
ST330C12L0	1200	1230	650	55	7570	7925	3	200	1.9	1730	500	0.05	2 3 7 9	25154
ST330C14L0	1400	1230	650	55	7570	7925	3	200	1.9	1730	500	0.05	2 3 7 9	25154
ST330C16L0	1600	1230	650	55	7570	7925	3	200	1.9	1730	500	0.05	2 3 7 9	25154
ST700C12L0	1200	1857	910	55	13200	13800	3	200	1.8	2000	500	0.031	2 3 7 9	25190
ST700C16L0	1600	1857	910	55	13200	13800	3	200	1.8	2000	500	0.031	2 3 7 9	25190
ST700C18L0	1800	1857	910	55	13200	13800	3	200	1.8	2000	500	0.031	2 3 7 9	25190
ST700C20L0	2000	1857	910	55	13200	13800	3	200	1.8	2000	500	0.031	2 3 7 9	25190
ST700C22L0	2200	1857	910	55	13200	13800	3	200	1.8	2000	500	0.031	2 3 7 9	25190
ST730C08L0	800	2000	990	55	15000	15700	3	200	1.62	2000	500	0.031	2 3 7 9	25191
ST730C12L0	1200	2000	990	55	15000	15700	3	200	1.62	2000	500	0.031	2 3 7 9	25191

### NOTES:

- |  |  |  |   |
|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j=T_j \text{ max.}=125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j=125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j=25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j=T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|--|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	dv/dt (V/μs)	$R_{\Theta J-HS}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristors

## TO-200AC (B-Puk)

ST730C14L0	1400	2000	990	55	15000	15700	3	200	1.62	2000	500	0.031	2 3 7 9	25191
ST730C16L0	1600	2000	990	55	15000	15700	3	200	1.62	2000	500	0.031	2 3 7 9	25191
ST730C18L0	1800	2000	990	55	15000	15700	3	200	1.62	2000	500	0.031	2 3 7 9	25191
ST780C04L0	400	2700	1350	55	20550	21500	3	200	1.31	3600	500	0.031	2 3 7 9	25192
ST780C06L0	600	2700	1350	55	20550	21500	3	200	1.31	3600	500	0.031	2 3 7 9	25192

## A-24 (K-Puk)

ST1000C12K0	1200	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C14K0	1400	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C16K0	1600	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C18K0	1800	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C20K0	2000	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C22K0	2200	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C24K0	2400	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1000C26K0	2600	2800	1470	55	17800	18100	3	200	1.8	3000	500	0.021	2 3 7 9 11	
ST1200C12K0	1200	3080	1650	55	25700	26900	3	200	1.73	4000	500	0.021	2 3 7 9 11	25196
ST1200C14K0	1400	3080	1650	55	25700	26900	3	200	1.73	4000	500	0.021	2 3 7 9 11	25196
ST1200C16K0	1600	3080	1650	55	25700	26900	3	200	1.73	4000	500	0.021	2 3 7 9 11	25196

### NOTES:

- |  |  |  |   |
|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j=T_j \text{ max.}=125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j=125^\circ\text{C}</math></p> | <p>5 dv/dt exponential to 0.67 <math>V_{DRM}</math>. <math>T_j=25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.</p> <p>7 dv/ dt linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 dv/dt exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j=T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|--|--|---|

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

A-24 (K-Puk)

ST1200C18K0	1800	3080	1650	55	25700	26900	3	200	1.73	4000	500	0.021	2 3 7 9 11	25196
ST1200C20K0	2000	3080	1650	55	25700	26900	3	200	1.73	4000	500	0.021	2 3 7 9 11	25196
ST1230C08K0	800	3200	1745	55	28000	29500	3	200	1.62	4000	500	0.021	2 3 7 9 11	25194
ST1230C12K0	1200	3200	1745	55	28000	29500	3	200	1.62	4000	500	0.021	2 3 7 9 11	25194
ST1230C14K0	1400	3200	1745	55	28000	29500	3	200	1.62	4000	500	0.021	2 3 7 9 11	25194
ST1230C16K0	1600	3200	1745	55	28000	29500	3	200	1.62	4000	500	0.021	2 3 7 9 11	25194
ST1280C04K0	400	4150	2310	55	35700	37400	3	200	1.44	8000	500	0.021	2 3 7 9 11	25195
ST1280C06K0	600	4150	2310	55	35700	37400	3	200	1.44	8000	500	0.021	2 3 7 9 11	25195

A-36 (R-Puk)

ST1900C45R0	4500	3500	1625	80	22000	23500	4	400	2.1	2900	500	0.012	2 3 7 11	
ST1900C46R0	4600	3500	1625	80	22000	23500	4	400	2.1	2900	500	0.012	2 3 7 11	
ST1900C48R0	4800	3500	1625	80	22000	23500	4	400	2.1	2900	500	0.012	2 3 7 11	
ST1900C50R0	5000	3500	1625	80	22000	23500	4	400	2.1	2900	500	0.012	2 3 7 11	
ST1900C52R0	5200	3500	1625	80	22000	23500	4	400	2.1	2900	500	0.012	2 3 7 11	
ST2100C35R0	3500	3850	1770	80	29000	30350	4	400	1.88	2900	500	0.012	2 3 7 11	
ST2100C36R0	3600	3850	1770	80	29000	30350	4	400	1.88	2900	500	0.012	2 3 7 11	
ST2100C38R0	3800	3850	1770	80	29000	30350	4	400	1.88	2900	500	0.012	2 3 7 11	

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100%  $V_{RRM}$  reapplied,  $T_j=T_j \text{ max.}=125^\circ\text{C}$
- For  $I_{GT}$ ,  $V_{GT}$ :  $T_j = 25^\circ\text{C}$
- $V_{TM} @ \pi \times I_{T(AV)}$ ,  $T_j=125^\circ\text{C}$
- $dv/dt$  exponential to 0.67  $V_{DRM}$ .  $T_j=25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.
- $dv/dt$  linear to 0.8  $V_{DRM}$ ;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100%  $V_{DRM}$ ;  $T_j = 125^\circ\text{C}$
- $V_{TM}$  measured at  $T_j=T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled

# Phase Control SCR

Part Number	$V_{RRM}$ $V_{DRM}$ (V)	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	$@T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$V_{GT}$ (V)	$I_{GT}$ (mA)	$V_{TM}$ (V)	$@I_{TM}$ (A)	$dv/dt$ (V/μs)	$R_{\theta JC}$ (DC) (°C/W)	Notes	Fax-on-Demand
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## Thyristors

A-36 (R-Puk)

ST2100C40R0	4000	3850	1770	80	29000	30350	4	400	1.88	2900	500	0.012	2 3 7 11	
ST2100C42R0	4200	3850	1770	80	29000	30350	4	400	1.88	2900	500	0.012	2 3 7 11	
ST2600C20R0	2000	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST2600C22R0	2200	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST2600C24R0	2400	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST2600C26R0	2600	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST2600C28R0	2800	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST2600C30R0	3000	4800	2220	80	36800	38500	4	400	1.45	2900	500	0.012	2 3 7 11	
ST3230C10R0	1000	5950	2785	80	49000	51300	4	400	1.3	2900	500	0.012	2 3 7 11	
ST3230C12R0	1200	5950	2785	80	49000	51300	4	400	1.3	2900	500	0.012	2 3 7 11	
ST3230C14R0	1400	5950	2785	80	49000	51300	4	400	1.3	2900	500	0.012	2 3 7 11	
ST3230C16R0	1600	5950	2785	80	49000	51300	4	400	1.3	2900	500	0.012	2 3 7 11	
ST3230C18R0	1800	5950	2785	80	49000	51300	4	400	1.3	2900	500	0.012	2 3 7 11	

### NOTES:

- |  |  |  |   |
|--|--|--|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% <math>V_{RRM}</math> reapplied, <math>T_j=T_j \text{ max.}=125^\circ\text{C}</math></p> <p>3 For <math>I_{GT}</math>, <math>V_{GT}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{TM} @ \pi \times I_{T(AV)}</math>, <math>T_j=125^\circ\text{C}</math></p> | <p>5 <math>dv/dt</math> exponential to 0.67 <math>V_{DRM}</math>. <math>T_j=25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> <p>8 <math>dv/dt</math> exponential to 100% <math>V_{DRM}</math>; <math>T_j = 125^\circ\text{C}</math></p> | <p>9 <math>V_{TM}</math> measured at <math>T_j=T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> | <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> <p>14 DC operation, double side cooled</p> |
|--|--|--|---|

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$V_{TM}$ (V)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor Module

									T-MODULE
T50RIA10	100	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA20	200	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA40	400	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA60	600	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA80	800	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA100	1000	50	70	1.6	1100	1150	0.65	2 4 22	87105
T50RIA120	1200	50	70	1.6	1100	1150	0.65	2 4 22	87105
T70RIA10	100	70	70	1.6	1400	1460	0.5	2 4 22	87105
T70RIA20	200	70	70	1.6	1400	1460	0.5	2 4 22	87105
T70RIA40	400	70	70	1.6	1400	1460	0.5	2 4 22	87105
T70RIA60	600	70	70	1.6	1400	1460	0.5	2 4 22	87105
T70RIA80	800	70	70	1.6	1400	1460	0.5	2 4 22	87105
T70RIA100	1000	70	70	1.6	1400	1460	0.5	2 4 22	87105

### NOTES:

- |   |  |  |  |
|---|--|--|--|
| 1 Available on tape-and-reel. Refer to case outline.                                | 8 dv/dt exponential to 100% VDRM; $T_j = 125^\circ\text{C}$  | 14 DC operation, double side cooled  | 19 Available with spacers and longer terminal screws. Refer to case outline for details. |
| 2 For $I_{TSM}$ : 100% VRRM reapplied, $T_j = T_j \text{ max.} = 125^\circ\text{C}$ | 9 $V_{TM}$ measured at $T_j = T_j \text{ max}$   | 15 dv/dt exponential to 0.67; $T_j = 125^\circ\text{C}$  | 20 RMS isolation voltage = 3000V - 50Hz  |
| 3 For $I_{gt}$ , $V_{gt}$ : $T_j = 25^\circ\text{C}$                                | 10 Max $T_j = 150^\circ\text{C}$   | 16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V                             | 21 RMS isolation voltage = 2500V - 50Hz  |
| 4 $V_{TM}$ @ $\pi$ X $I_{T(AV)}$ , $T_j = 125^\circ\text{C}$                        | 11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V | 17 Available without auxiliary cathode. Refer to case outline for details.   | 22 Value given for $R_{thJC}$ is per module.   |
| 5 dv/dt exponential to 0.67 VDRM. $T_j = 25^\circ\text{C}$                          | 12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40    | 18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details. | 24 RMS isolation voltage = 4000V - 50Hz  |
| 6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.      | 13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40       |  | 25 RMS isolation voltage = 3500 - 50Hz   |
| 7 dv/dt linear to 0.8 VdrM; $T_j = 125^\circ\text{C}$                               |  |  |  |



# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$V_{TM}$ (V)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor Module

T70RIA120	1200	70	70	1.6	1400	1460	0.5	2 4 22	87105
T90RIA10	100	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA20	200	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA40	400	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA60	600	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA80	800	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA100	1000	90	70	1.6	1500	1570	0.38	2 4 22	87105
T90RIA120	1200	90	70	1.6	1500	1570	0.38	2 4 22	87105
<b>T-MODULE</b>									
IRKT26/04	400	27	85		335	350	0.31	2 16 17 22 25	27130
IRKT26/06	600	27	85		335	350	0.31	2 16 17 22 25	27130
IRKT26/08	800	27	85		335	350	0.31	2 16 17 22 25	27130
IRKT26/10	1000	27	85		335	350	0.31	2 16 17 22 25	27130
IRKT26/12	1200	27	85		335	350	0.31	2 16 17 22 25	27130
<b>ADD-A-Pak</b>									

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi$  X  $I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_{(C)}$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

## ADD-A-Pak

IRKT26/14	1400	27	85	335	350	0.31	2 16 17 22 25	27130
IRKT26/16	1600	27	85	335	350	0.31	2 16 17 22 25	27130
IRKT41/04	400	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/06	600	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/08	800	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/10	1000	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/12	1200	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/14	1400	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT41/16	1600	45	85	715	750	0.23	2 16 17 18 22 25	27131
IRKT56/04	400	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT56/06	600	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT56/08	800	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT56/10	1000	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT56/12	1200	60	85	1100	1150	0.2	2 16 17 18 22 25	27131

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_{(C)}$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

## ADD-A-Pak

IRKT56/14	1400	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT56/16	1600	60	85	1100	1150	0.2	2 16 17 18 22 25	27131
IRKT71/04	400	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/06	600	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/08	800	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/10	1000	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/12	1200	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/14	1400	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT71/16	1600	75	85	1400	1470	0.165	2 16 17 18 22 25	27132
IRKT91/04	400	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT91/06	600	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT91/08	800	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT91/10	1000	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT91/12	1200	95	85	1500	1570	0.135	2 16 17 18 22 25	27132

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_C$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

IRKT91/14	1400	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT91/16	1600	95	85	1500	1570	0.135	2 16 17 18 22 25	27132
IRKT105/04	400	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/06	600	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/08	800	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/10	1000	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/12	1200	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/14	1400	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
IRKT105/16	1600	105	85	1500	1570	0.135	2 16 17 18 22 25	27133
<b>ADD-A-Pak</b>								
IRKT136-04	400	135	85	2700	2800	0.1	2 18 19 20 22	87101
IRKT136-08	800	135	85	2700	2800	0.1	2 18 19 20 22	87101
IRKT136-12	1200	135	85	2700	2800	0.1	2 18 19 20 22	87101
IRKT136-14	1400	135	85	2700	2800	0.1	2 18 19 20 22	87101
<b>INT-A-Pak</b>								

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi</math> X <math>I_{t(AV)}</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 VdrM; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_C$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

## INT-A-Pak

IRKT136-16	1600	135	85	2700	2800	0.1	2 18 19 20 22	87101
IRKT142-08	800	140	85	4000	4200	0.085	2 18 19 20 22	87101
IRKT142-12	1200	140	85	4000	4200	0.085	2 18 19 20 22	87101
IRKT142-16	1600	140	85	4000	4200	0.085	2 18 19 20 22	87101
IRKT142-18	1800	140	85	4000	4200	0.085	2 18 19 20 22	87101
IRKT142-20	2000	140	85	4000	4200	0.085	2 18 19 20 22	87101
IRKT162-04	400	160	85	4300	4500	0.085	2 18 19 20 22	87101
IRKT162-08	800	160	85	4300	4500	0.085	2 18 19 20 22	87101
IRKT162-12	1200	160	85	4300	4500	0.085	2 18 19 20 22	87101
IRKT162-14	1400	160	85	4300	4500	0.085	2 18 19 20 22	87101
IRKT162-16	1600	160	85	4300	4500	0.085	2 18 19 20 22	87101
<b>MAGN-A-Pak</b>								
IRKT170-04	400	170	85	4300	4500	0.085	2 18 20 22	87102
IRKT170-08	800	170	85	4300	4500	0.085	2 18 20 22	87102

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi$  X  $I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_C$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

## MAGN-A-Pak

IRKT170-12	1200	170	85	4300	4500	0.085	2 18 20 22	87102
IRKT170-14	1400	170	85	4300	4500	0.085	2 18 20 22	87102
IRKT170-16	1600	170	85	4300	4500	0.085	2 18 20 22	87102
IRKT230-08	800	230	85	6300	6600	0.063	2 18 20 22	87102
IRKT230-12	1200	230	85	6300	6600	0.063	2 18 20 22	87102
IRKT230-16	1600	230	85	6300	6600	0.063	2 18 20 22	87102
IRKT230-18	1800	230	85	6300	6600	0.063	2 18 20 22	87102
IRKT230-20	2000	230	85	6300	6600	0.063	2 18 20 22	87102
IRKT250-04	400	250	85	7150	7500	0.063	2 18 20 22	87102
IRKT250-08	800	250	85	7150	7500	0.063	2 18 20 22	87102
IRKT250-12	1200	250	85	7150	7500	0.063	2 18 20 22	87102
IRKT250-14	1400	250	85	7150	7500	0.063	2 18 20 22	87102
IRKT250-16	1600	250	85	7150	7500	0.063	2 18 20 22	87102

### NOTES:

- |   |  |  |  |
|---|--|--|--|
| 1 Available on tape-and-reel. Refer to case outline.                                | 8 dv/dt exponential to 100% VDRM; $T_j = 125^\circ\text{C}$  | 14 DC operation, double side cooled  | 19 Available with spacers and longer terminal screws. Refer to case outline for details. |
| 2 For $I_{TSM}$ : 100% VRRM reapplied, $T_j = T_j \text{ max.} = 125^\circ\text{C}$ | 9 $V_{TM}$ measured at $T_j = T_j \text{ max}$   | 15 dv/dt exponential to 0.67; $T_j = 125^\circ\text{C}$  | 20 RMS isolation voltage = 3000V - 50Hz  |
| 3 For $I_{GT}$ , $V_{GT}$ : $T_j = 25^\circ\text{C}$                                | 10 Max $T_j = 150^\circ\text{C}$   | 16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V                             | 21 RMS isolation voltage = 2500V - 50Hz  |
| 4 $V_{TM}$ @ $\pi X I_{T(AV)}$ , $T_j = 125^\circ\text{C}$                          | 11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V | 17 Available without auxiliary cathode. Refer to case outline for details.   | 22 Value given for $R_{thJC}$ is per module.   |
| 5 dv/dt exponential to 0.67 VDRM. $T_j = 25^\circ\text{C}$                          | 12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40    | 18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details. | 24 RMS isolation voltage = 4000V - 50Hz  |
| 6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.      | 13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40       |  | 25 RMS isolation voltage = 3500 - 50Hz   |
| 7 dv/dt linear to 0.8 VdrM; $T_j = 125^\circ\text{C}$                               |  |  |  |

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(AV)}$ @ $T_{(C)}$ (A) (°C)	$I_{TSM}$ 50 Hz 60 Hz (A) (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Thyristor Module

## Super MAGN-A-Pak

IRKT430-16	1600	430	82	13200	13800	0.032	2 20 22
IRKT430-18	1800	430	82	13200	13800	0.032	2 20 22
IRKT430-20	2000	430	82	13200	13800	0.032	2 20 22
IRKT500-08	800	500	82	15000	15700	0.032	2 20 22
IRKT500-12	1200	500	82	15000	15700	0.032	2 20 22
IRKT500-14	1400	500	82	15000	15700	0.032	2 20 22
IRKT500-16	1600	500	82	15000	15700	0.032	2 20 22

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 VdrM;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Diode

									ADD-A-Pak
IRKH26/04	IRKL26/04	400	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/06	IRKL26/06	600	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/08	IRKL26/08	800	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/10	IRKL26/10	1000	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/12	IRKL26/12	1200	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/14	IRKL26/14	1400	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH26/16	IRKL26/16	1600	27	85	335	350	0.31	2 16 17 22 25	27130
IRKH41/04	IRKL41/04	400	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH41/06	IRKL41/06	600	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH41/08	IRKL41/08	800	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH41/10	IRKL41/10	1000	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH41/12	IRKL41/12	1200	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH41/14	IRKL41/14	1400	45	85	715	750	0.23	2 16 17 22 25	27131

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi \times I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 Vdrm; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|



# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Diode

## ADD-A-Pak

IRKH41/16	IRKL41/16	1600	45	85	715	750	0.23	2 16 17 22 25	27131
IRKH56/04	IRKL56/04	400	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/06	IRKL56/06	600	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/08	IRKL56/08	800	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/10	IRKL56/10	1000	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/12	IRKL56/12	1200	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/14	IRKL56/14	1400	60	85	1100	1150	0.2	2 16 17 22 25	27131
IRKH56/16	IRKL56/16	1600	60	85	1100	1150	0.2	2 16 17 22	27131
IRKH71/04	IRKL71/04	400	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH71/06	IRKL71/06	600	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH71/08	IRKL71/08	800	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH71/10	IRKL71/10	1000	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH71/12	IRKL71/12	1200	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH71/14	IRKL71/14	1400	75	85	1400	1470	0.165	2 16 17 22	27132

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / Diode

## ADD-A-Pak

IRKH71/16	IRKL71/16	1600	75	85	1400	1470	0.165	2 16 17 22	27132
IRKH91/04	IRKL91/04	400	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/06	IRKL91/06	600	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/08	IRKL91/08	800	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/10	IRKL91/10	1000	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/12	IRKL91/12	1200	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/14	IRKL91/14	1400	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH91/16	IRKL91/16	1600	95	85	1500	1570	0.135	2 16 17 22	27132
IRKH105/16	IRKL105/16	1600	95	85	1500	1570	0.135	2 16 17 22	27133
IRKH105/04	IRKL105/04	400	105	85	1500	1570	0.135	2 16 17 22	27133
IRKH105/06	IRKL105/06	600	105	85	1500	1570	0.135	2 16 17 22	27133
IRKH105/08	IRKL105/08	800	105	85	1500	1570	0.135	2 16 17 22	27133
IRKH105/10	IRKL105/10	1000	105	85	1500	1570	0.135	2 16 17 22	27133
IRKH105/12	IRKL105/12	1200	105	85	1500	1570	0.135	2 16 17 22	27133

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

		I @T <sub>C</sub>		I <sup>TSM</sup>		R <sub>θJC(DC)</sub>	Notes	Fax-on-Demand
(A)	(°C)	50 Hz (A)	60 Hz (A)	(°C/W)				

## Thyristor / Diode

								Notes	ADD-A-Pak
IRKH105/14	IRKL105/14	1400	105	85	1500	1570	0.135	2 16 17 22	27133
IRKH136-04	IRKL136-04	400	135	85	2700	2800	0.1	2 19 20 22	87101
IRKH136-08	IRKL136-08	800	135	85	2700	2800	0.1	2 19 20 22	87101
IRKH136-12	IRKL136-12	1200	135	85	2700	2800	0.1	2 19 20 22	87101
IRKH136-14	IRKL136-14	1400	135	85	2700	2800	0.1	2 19 20 22	87101
IRKH136-16	IRKL136-16	1600	135	85	2700	2800	0.1	2 19 20 22	87101
IRKH142-08	IRKL142-08	800	140	85	4000	4200	0.085	2 19 20 22	87101
IRKH142-12	IRKL142-12	1200	140	85	4000	4200	0.085	2 19 20 22	87101
IRKH142-16	IRKL142-16	1600	140	85	4000	4200	0.085	2 19 20 22	87101
IRKH142-18	IRKL142-18	1800	140	85	4000	4200	0.085	2 19 20 22	87101
IRKH142-20	IRKL142-20	2000	140	85	4000	4200	0.085	2 19 20 22	87101
IRKH162-04	IRKL162-04	400	160	85	4300	4500	0.085	2 19 20 22	87101
IRKH162-08	IRKL162-08	800	160	85	4300	4500	0.085	2 19 20 22	87101

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For I<sub>tsm</sub>: 100% VRRM reapplied, T<sub>j</sub>=T<sub>j</sub> max.=125°C
- For I<sub>gt</sub>, V<sub>gt</sub>: T<sub>j</sub> = 25°C
- V<sub>tm</sub> @ pi X I<sub>t</sub>(AV), T<sub>j</sub>=125°C
- dv/dt exponential to 0.67 VDRM. T<sub>j</sub>=25°C
- Available with metric stud. To order, add 'M' to part number, e.g.10RIA10M.
- dv/ dt linear to 0.8 Vdrn; T<sub>j</sub> = 125°C
- dv/dt exponential to 100% VDRM; T<sub>j</sub> = 125°C
- V<sub>tm</sub> measured at T<sub>j</sub>=T<sub>j</sub> max
- Max T<sub>j</sub> = 150°C
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- dv/dt exponential to 0.67; T<sub>j</sub> = 125°C
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for R<sub>thJC</sub> is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_C$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / High Voltage Diode

IRKH162-12	IRKL162-12	1200	160	85	4300	4500	0.085	2 19 20 22	INT-A-Pak 87101
IRKH162-14	IRKL162-14	1400	160	85	4300	4500	0.085	2 19 20 22	87101
IRKH162-16	IRKL162-16	1600	160	85	4300	4500	0.085	2 19 20 22	87101
IRKH170-04	IRKL170-04	400	170	85	4300	4500	0.085	2 20 22	MAGN-A-Pak 87102
IRKH170-08	IRKL170-08	800	170	85	4300	4500	0.085	2 20 22	87102
IRKH170-12	IRKL170-12	1200	170	85	4300	4500	0.085	2 20 22	87102
IRKH170-14	IRKL170-14	1400	170	85	4300	4500	0.085	2 20 22	87102
IRKH170-16	IRKL170-16	1600	170	85	4300	4500	0.085	2 20 22	87102
IRKH230-08	IRKL230-08	800	230	85	6300	6600	0.063	2 20 22	87102
IRKH230-12	IRKL230-12	1200	230	85	6300	6600	0.063	2 20 22	87102
IRKH230-16	IRKL230-16	1600	230	85	6300	6600	0.063	2 20 22	87102
IRKH230-18	IRKL230-18	1800	230	85	6300	6600	0.063	2 20 22	87102
IRKH230-20	IRKL230-20	2000	230	85	6300	6600	0.063	2 20 22	87102

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi$  X  $I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	VRRM VDRM (V)	$I_{T(AV)}$ (A)	@ $T_{(C)}$ (°C)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Thyristor / High Voltage Diode

## MAGN-A-Pak

IRKH250-04	IRKL250-04	400	250	85	7150	7500	0.063	2 20 22	87102
IRKH250-08	IRKL250-08	800	250	85	7150	7500	0.063	2 20 22	87102
IRKH250-12	IRKL250-12	1200	250	85	7150	7500	0.063	2 20 22	87102
IRKH250-14	IRKL250-14	1400	250	85	7150	7500	0.063	2 20 22	87102
IRKH250-16	IRKL250-16	1600	250	85	7150	7500	0.063	2 20 22	87102
<b>Super MAGN-A-Pak</b>									
IRKH430-16	IRKL430-16	1600	430	82	13200	13800	0.032	2 20 22	
IRKH430-18	IRKL430-18	1800	430	82	13200	13800	0.032	2 20 22	
IRKH430-20	IRKL430-20	2000	430	82	13200	13800	0.032	2 20 22	
IRKH500-08	IRKL500-08	800	500	82	15000	15700	0.032	2 20 22	
IRKH500-12	IRKL500-12	1200	500	82	15000	15700	0.032	2 20 22	
IRKH500-14	IRKL500-14	1400	500	82	15000	15700	0.032	2 20 22	
IRKH500-16	IRKL500-16	1600	500	82	15000	15700	0.032	2 20 22	

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 VdrM;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	Voltage Range Thyristor Diode		$I_{T(AV)}$ @ $T_C$	$I_{TSM}$ 50 Hz	$I_{TSM}$ 60 Hz	$R_{\theta JC(DC)}$	Notes	Fax-on-Demand
(V)	(V)	(A)	(°C)	(A)	(A)	(°C/W)			

## Thyristor / High Voltage Diode

Part Number	Part Number	Voltage Range	$I_{T(AV)}$ @ $T_C$	$I_{TSM}$ 50 Hz	$I_{TSM}$ 60 Hz	$R_{\theta JC(DC)}$	Notes	Fax-on-Demand
(V)	(V)	(A)	(°C)	(A)	(A)	(°C/W)		
IRKH136-14D	IRKL136-14D20	1400 2000	135 85	2700	2800	0.1	2 19 20 22	87101
IRKH136-16D	IRKL136-16D25	1600 2500	135 85	2700	2800	0.1	2 19 20 22	87101
IRKH142-14D	IRKL142-14D20	1400 2000	140 85	4000	4200	0.085	2 19 20 22	87101
IRKH142-16D	IRKL142-16D25	1600 2500	140 85	4000	4200	0.085	2 19 20 22	87101
IRKH142-18D	IRKL142-18D28	1800 2800	140 85	4000	4200	0.085	2 19 20 22	87101
IRKH142-20D	IRKL142-20D32	2000 3200	140 85	4000	4200	0.085	2 19 20 22	87101
<b>INT-A-Pak</b>								
IRKH162-14D	IRKL162-14D20	1400 2000	160 85	4300	4500	0.085	2 20 22	87101
IRKH162-16D	IRKL162-16D25	1600 2500	160 85	4300	4500	0.085	2 20 22	87101
IRKH170-14D	IRKL170-14D20	1400 2000	170 85	4300	4500	0.085	2 20 22	87102
IRKH170-16D	IRKL170-16D25	1600 2500	170 85	4300	4500	0.085	2 20 22	87102
IRKH230-14D	IRKL230-14D20	1400 2000	230 85	6300	6600	0.063	2 20 22	87102
IRKH230-16D	IRKL230-16D25	1600 2500	230 85	6300	6600	0.063	2 20 22	87102
<b>MAGN-A-Pak</b>								

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi \times I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 Vdrm; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|

# Phase Control SCR

Part Number Doubler Circuit Positive Control	Part Number Doubler Circuit Negative Control	Voltage Range Thyristor Diode		$I_{T(AV)}$ @ $T_{(C)}$	$I_{TSM}$ 50 Hz	$I_{TSM}$ 60 Hz	$R_{\theta JC(DC)}$	Notes	Fax-on-Demand
		(V)	(V)	(A)	(°C)	(A)	(A)	(°C/W)	

## Thyristor / High Voltage Diode

## MAGN-A-Pak

IRKH230-18D	IRKL230-18D28	1800	2800	230	85	6300	6600	0.063	2 20 22	87102
IRKH230-20D	IRKL230-20D32	2000	3200	230	85	6300	6600	0.063	2 20 22	87102
IRKH250-14D	IRKL250-14D20	1400	2000	250	85	7150	7500	0.063	2 20 22	87102
IRKH250-16D	IRKL250-16D25	1600	2500	250	85	7150	7500	0.063	2 20 22	87102

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi$  X  $I_{t(AV)}$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 Vdrm;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	w/ free-wheeling diode	w/ free-wheeling diode & voltage suppression	VRRM VDRM (V)	$I_O$ (A)	@ $T_C$ (°C)	$I_{TM}$ (A)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Single Phase Controlled Bridge

PACE-Pak

P104	P104W	P104KW	100	25	85	10	300	315	0.56	2 21 22	ckt 0
P101	P101W	P101KW	400	25	85	10	300	315	0.56	2 21 22	ckt 0
P102	P102W	P102KW	600	25	85	10	300	315	0.56	2 21 22	ckt 0
P103	P103W	P103KW	800	25	85	10	300	315	0.56	2 21 22	ckt 0
P105	P105W	P105KW	1200	25	85	10	300	315	0.56	2 21 22	ckt 0
P404	P404W	P404KW	100	40	85	20	325	340	0.263	2 21 22	ckt 0
P401	P401W	P401KW	400	40	85	20	325	340	0.263	2 21 22	ckt 0
P402	P402W	P402KW	600	40	85	20	325	340	0.263	2 21 22	ckt 0
P403	P403W	P403KW	800	40	85	20	325	340	0.263	2 21 22	ckt 0
P405	P405W	P405KW	1200	40	85	20	325	340	0.263	2 21 22	ckt 0
P124			100	25	85	10	300	315	0.56	2 21 22	ckt 2
P121			400	25	85	10	300	315	0.56	2 21 22	ckt 2

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi \times I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 VdrM; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|



# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_o$ (A)	@ $T_c$ (°C)	$I_{TM}$ (A)	$I_{TSM}$ 50 Hz (A)	$I_{TSM}$ 60 Hz (A)	$R_{\theta JC}(DC)$ (°C/W)	Notes	Fax-on-Demand
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## Single Phase Controlled Bridge

PACE-Pak

P122	600	25	85	10	300	315	0.56	2 21 22	ckt 2
P123	800	25	85	10	300	315	0.56	2 21 22	ckt 2
P125	1200	25	85	10	300	315	0.56	2 21 22	ckt 2
P424	100	40	85	20	325	340	0.263	2 21 22	ckt 2
P421	400	40	85	20	325	340	0.263	2 21 22	ckt 2
P422	600	40	85	20	325	340	0.263	2 21 22	ckt 2
P423	800	40	85	20	325	340	0.263	2 21 22	ckt 2
P425	1200	40	85	20	325	340	0.263	2 21 22	ckt 2
P134	100	25	85	10	300	315	0.56	2 21 22	ckt 3
P131	400	25	85	10	300	315	0.56	2 21 22	ckt 3
P132	600	25	85	10	300	315	0.56	2 21 22	ckt 3
P133	800	25	85	10	300	315	0.56	2 21 22	ckt 3
P135	1200	25	85	10	300	315	0.56	2 21 22	ckt 3

### NOTES:

- |   |  |  |  |
|---|--|--|--|
| 1 Available on tape-and-reel. Refer to case outline.                                | 8 dv/dt exponential to 100% VDRM; $T_j = 125^\circ\text{C}$  | 14 DC operation, double side cooled  | 19 Available with spacers and longer terminal screws. Refer to case outline for details. |
| 2 For $I_{TSM}$ : 100% VRRM reapplied, $T_j = T_j \text{ max.} = 125^\circ\text{C}$ | 9 $V_{TM}$ measured at $T_j = T_j \text{ max}$   | 15 dv/dt exponential to 0.67; $T_j = 125^\circ\text{C}$  | 20 RMS isolation voltage = 3000V - 50Hz  |
| 3 For $I_{GT}$ , $V_{GT}$ : $T_j = 25^\circ\text{C}$                                | 10 Max $T_j = 150^\circ\text{C}$   | 16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V                             | 21 RMS isolation voltage = 2500V - 50Hz  |
| 4 $V_{TM}$ @ $\pi \times I_t(AV)$ , $T_j = 125^\circ\text{C}$                       | 11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V | 17 Available without auxiliary cathode. Refer to case outline for details.   | 22 Value given for $R_{thJC}$ is per module.   |
| 5 dv/dt exponential to 0.67 VDRM. $T_j = 25^\circ\text{C}$                          | 12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40    | 18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details. | 24 RMS isolation voltage = 4000V - 50Hz  |
| 6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.      | 13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40       |  | 25 RMS isolation voltage = 3500 - 50Hz   |
| 7 dv/dt linear to 0.8 VdrM; $T_j = 125^\circ\text{C}$                               |  |  |  |

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_o$ (A)	@ $T_c$ (°C)	$I_{TM}$ (A)	$I_{TSM}$ 50 Hz (A)	$I_{TSM}$ 60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## Single Phase Controlled Bridge

PACE-Pak

P434	100	40	85	20	325	340	0.263	2 21 22	ckt 3
P431	400	40	85	20	325	340	0.263	2 21 22	ckt 3
P432	600	40	85	20	325	340	0.263	2 21 22	ckt 3
P433	800	40	85	20	325	340	0.263	2 21 22	ckt 3
P435	1200	40	85	20	325	340	0.263	2 21 22	ckt 3

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi \times I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 VdrM;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(RM)}$ (A)	@ $T_{(C)}$ (°C)	$V_{TM}$ (V)	@ $I_{TM}$ (A)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## AC Controllers

										INT-A-Pak
54MT80K	800	50	80	2.7	+02	330	345	0.187	2 21 24	87114
54MT100K	1000	50	80	2.7	+02	330	345	0.187	2 21 24	87114
54MT120K	1200	50	80	2.7	+02	330	345	0.187	2 21 24	87114
54MT140K	1400	50	80	2.7	+02	330	345	0.187	2 21 24	87114
54MT160K	1600	50	80	2.7	+02	330	345	0.187	2 21 24	87114
94MT80K	800	90	80	1.6	+02	800	840	0.137	2 21 24	87114
94MT100K	1000	90	80	1.6	+02	800	840	0.137	2 21 24	87114
94MT120K	1200	90	80	1.6	+02	800	840	0.137	2 21 24	87114
94MT140K	1400	90	80	1.6	+02	800	840	0.137	2 21 24	87114
94MT160K	1600	90	80	1.6	+02	800	840	0.137	2 21 24	87114
104MT80K	800	100	80	1.5	+02	950	1000	0.119	2 21 24	87114
104MT100K	1000	100	80	1.5	+02	950	1000	0.119	2 21 24	87114
104MT120K	1200	100	80	1.5	+02	950	1000	0.119	2 21 24	87114

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi</math> X <math>I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 Vdrm; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|

# Phase Control SCR

Part Number	VRRM VDRM (V)	$I_{T(RM)}$ (A)	@ $T_c$ (°C)	$V_{TM}$ (V)	@ $I_{TM}$ (A)	$I_{TSM}$ 50 Hz (A)	$I_{TSM}$ 60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## AC Controllers

INT-A-Pak

104MT140K	1400	100	80	1.5	+02	950	1000	0.119	2 21 24	87114
104MT160K	1600	100	80	1.5	+02	950	1000	0.119	2 21 24	87114

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi \times I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 VdrM; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|

# Phase Control SCR

3-Phase Positive Controlled Bridge	3-Phase Negative Controlled Bridge	3-Phase Fully Controlled Bridge	VRRM VDRM (V)	$I_{O(DC)}$ @ $T_C$ (A)	$V_{TM}$ (V)	$I_{TSM}$ 50 Hz (A)	$I_{TSM}$ 60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## 3-Phase Controlled Bridges

										INT-A-Pak	
52MT80K	51MT80K	53MT80K	800	55	85	2.7	330	345	0.179	2 22 24	87113
52MT100K	51MT100K	53MT100K	1000	55	85	2.7	330	345	0.179	2 22 24	87113
52MT120K	51MT120K	53MT120K	1200	55	85	2.7	330	345	0.179	2 22 24	87113
52MT140K	51MT140K	53MT140K	1400	55	85	2.7	330	345	0.179	2 22 24	87113
52MT160K	51MT160K	53MT160K	1600	55	85	2.7	330	345	0.179	2 22 24	87113
92MT80K	91MT80K	93MT80K	800	90	85	1.7	800	840	0.144	2 22 24	87113
92MT100K	91MT100K	93MT100K	1000	90	85	1.7	800	840	0.144	2 22 24	87113
92MT120K	91MT120K	93MT120K	1200	90	85	1.7	800	840	0.144	2 22 24	87113
92MT140K	91MT140K	93MT140K	1400	90	85	1.7	800	840	0.144	2 22 24	87113
92MT160K	92MT160K	93MT160K	1600	90	85	1.7	800	840	0.144	2 22 24	87113
112MT80K	111MT80K	113MT80K	800	110	95	1.6	950	1000	0.117	2 22 24	87113
112MT100K	111MT100K	113MT100K	1000	110	95	1.6	950	1000	0.117	2 22 24	87113
112MT120K	111MT120K	113MT120K	1200	110	95	1.6	950	1000	0.117	2 22 24	87113

### NOTES:

- |  |  |   |   |
|--|--|---|---|
| <p>1 Available on tape-and-reel. Refer to case outline.</p> <p>2 For <math>I_{TSM}</math>: 100% VRRM reapplied, <math>T_j = T_j \text{ max.} = 125^\circ\text{C}</math></p> <p>3 For <math>I_{gt}</math>, <math>V_{gt}</math>: <math>T_j = 25^\circ\text{C}</math></p> <p>4 <math>V_{tm}</math> @ <math>\pi \times I_t(AV)</math>, <math>T_j = 125^\circ\text{C}</math></p> <p>5 <math>dv/dt</math> exponential to 0.67 VDRM. <math>T_j = 25^\circ\text{C}</math></p> <p>6 Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.</p> <p>7 <math>dv/dt</math> linear to 0.8 VdrM; <math>T_j = 125^\circ\text{C}</math></p> | <p>8 <math>dv/dt</math> exponential to 100% VDRM; <math>T_j = 125^\circ\text{C}</math></p> <p>9 <math>V_{tm}</math> measured at <math>T_j = T_j \text{ max}</math></p> <p>10 Max <math>T_j = 150^\circ\text{C}</math></p> <p>11 Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V</p> <p>12 Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40</p> <p>13 Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40</p> | <p>14 DC operation, double side cooled</p> <p>15 <math>dv/dt</math> exponential to 0.67; <math>T_j = 125^\circ\text{C}</math></p> <p>16 Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V</p> <p>17 Available without auxiliary cathode. Refer to case outline for details.</p> <p>18 Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.</p> | <p>19 Available with spacers and longer terminal screws. Refer to case outline for details.</p> <p>20 RMS isolation voltage = 3000V - 50Hz</p> <p>21 RMS isolation voltage = 2500V - 50Hz</p> <p>22 Value given for <math>R_{thJC}</math> is per module.</p> <p>24 RMS isolation voltage = 4000V - 50Hz</p> <p>25 RMS isolation voltage = 3500 - 50Hz</p> |
|--|--|---|---|

# Phase Control SCR

3-Phase Positive Controlled Bridge	3-Phase Negative Controlled Bridge	3-Phase Fully Controlled Bridge	VRRM VDRM (V)	$I_{O(DC)}$ (A)	$@T_{(C)}$ (°C)	$V_{TM}$ (V)	$I_{TSM}$ 50 Hz (A)	60 Hz (A)	$R_{\theta JC(DC)}$ (°C/W)	Notes	Fax-on-Demand
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## 3-Phase Controlled Bridges

INT-A-Pak

112MT140K	111MT140K	113MT140K	1400	110	95	1.6	950	1000	0.117	2 22 24	87113
112MT160K	111MT160K	113MT160K	1600	110	95	1.6	950	1000	0.117	2 22 24	87113

### NOTES:

- Available on tape-and-reel. Refer to case outline.
- For  $I_{TSM}$ : 100% VRRM reapplied,  $T_j = T_j \text{ max.} = 125^\circ\text{C}$
- For  $I_{gt}$ ,  $V_{gt}$ :  $T_j = 25^\circ\text{C}$
- $V_{tm}$  @  $\pi$  X  $I_t(AV)$ ,  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 0.67 VDRM.  $T_j = 25^\circ\text{C}$
- Available with metric stud. To order, add 'M' to part number, e.g. 10RIA10M.
- $dv/dt$  linear to 0.8 VdrM;  $T_j = 125^\circ\text{C}$
- $dv/dt$  exponential to 100% VDRM;  $T_j = 125^\circ\text{C}$
- $V_{tm}$  measured at  $T_j = T_j \text{ max}$
- Max  $T_j = 150^\circ\text{C}$
- Available with fast-on terminals. To order, change last '0' to '1' in part number, e.g. ST180S04P1V
- Available with fast-on terminals. To order, change first '0' to '1' in part number, e.g. 81RIA40
- Available with flag terminals. To order, change first '0' to '2' in part number, e.g. 82RIA40
- DC operation, double side cooled
- $dv/dt$  exponential to 0.67;  $T_j = 125^\circ\text{C}$
- Available with flag terminal. To order, change last '0' to '2' in part number, e.g. ST180S04P2V
- Available without auxiliary cathode. Refer to case outline for details.
- Available in center tap (circuit common anode or circuit common cathode) configurations. Refer to case outline for details.
- Available with spacers and longer terminal screws. Refer to case outline for details.
- RMS isolation voltage = 3000V - 50Hz
- RMS isolation voltage = 2500V - 50Hz
- Value given for  $R_{thJC}$  is per module.
- RMS isolation voltage = 4000V - 50Hz
- RMS isolation voltage = 3500 - 50Hz