silicon power transistors

NPN TO-63 (cont'd)

$I_{C(MAX)}$ = 10 to 30A $V_{CEO(SUS)}$ = 60 to 350V f_T = 0.6 to 30 MHz

Type #	$V_{CEO(SUS)}$ (Volts)	h_{FE} @ I_C/V_{CE} (Min-Max @ A/V)	$V_{CE(SAT)}$ @ I_C/I_B (V @ A/A)	V_{BE} @ I_C/V_{CE} (V @ A/V)	I_{CEV} @ V_{CE} (mA @ V)	P_D @ T_C =100°C (Watts)	θ_{JC} (°C/W)	$I_{S/b}$ @ V_{CE} t = 1sec (A @ V)	f_T (MHz)	t_{ON} @ I_C/I_B (µs @ A/A)	t_{OFF} @ I_C/I_B (µs @ A/A)	Generic Product	General Information
STA6046	60	20-100@20/4	2@20/1.33	2[3]@20/1.33	5@70	114	.875	5.2@22	30	.6@20/1.33	.9@20/1.33	**STA6046 Family.** 250 x 250 Mil Chip. Double Epitaxial Process. Ultrasonicly Bonded Leads. Case 531	High Current, High Speed Power Switch and Amplifier. Military Usage.
STA6047	100	20-100@20/4	2@20/1.33	2[3]@20/1.33	5@110	114	.875	5.2@22	30	.6@20/1.33	.9@20/1.33		
STA6048	140	20-100@20/4	2@20/1.33	2[3]@20/1.33	5@150	114	.875	5.2@22	30	.6@20/1.33	.9@20/1.33		
Typical Values	**110**	**20-200@20/4**	**1@20/1.33**	**1.8[3]@20/1.33**	**1@110**	**114**	**.875**	**5.2@22**	**30**	**.5@20/1.33**	**.9@20/1.33**		
NOTE: This product is developmental.													
STA9860	225	10-200@10/4	2@10/1	2.5@10/4	5@225	100	1.0	5@20	20	.6@10/1	3@10/1	**STA9860 Family.** 200 x 200 Mil Chip. Double Epitaxial Process. Ultrasonicly Bonded Leads. Case 531	High Voltage, High Speed Power Switch and Amplifier. Military Usage.
STA9861	300	10-200@8/4	2@8/.8	2.5@8/4	1.0@300	100	1.0	5@20	20	.6@8/.8	3@8/.8		
STA9862	350	10-200@5/4	2@5/.5	2.5@5/4	1.0@350	100	1.0	5@20	20	.5@5/.5	3@5/.5		
STA9863	225	10-200@5/4	2@5/.5	2.5@5/4	5@225	100	1.0	5@20	20	.5@5/.5	3@5/.5		
STA9864	300	10-200@5/4	2@5/.5	2 5@5/4	1.0@300	100	1.0	5@20	20	.5@5/.5	3@5/.5		
Typical Values	**275**	**10-200@5/4**	**1@5/.5**	**1.8@5/4**	**1@275**	**100**	**1.0**	**5@20**	**20**	**.5@5/.5**	**2.5@5/.5**		
NOTE: This product is developmental.													
STA9870	225	10-200@20/4	2@20/2	2.5@20/4	5@225	114	.875	2.5@22	20	.6@20/2	3@20/2	**STA9870 Family.** 250 x 250 Mil Chip. Double Epitaxial Process. Ultrasonicly Bonded Leads. Case 531	High Voltage, High Current, High Speed Power Switch and Amplifier. Military Usage.
STA9871	300	10-200@15/4	2@15/1.5	2.5@15/4	1.0@300	114	.875	5.2@22	20	.6@15/1.5	3@15/1.5		
STA9872	350	10-200@12/4	2@12/1.2	2.5@12/4	1.0@350	114	.875	5.2@22	20.	.5@12/1.2	3@12/1.2		
Typical Values	**250**	**10-200@12/4**	**1@12/1.2**	**1.8[3]@12/1.2**	**1@250**	**114**	**.875**	**5.2@22**	**20.**	**.5@12/1.2**	**2.5@12/1.2**		
NOTE: This product is developmental.													

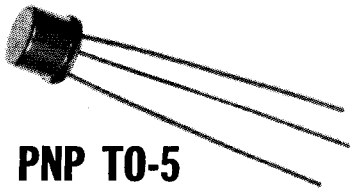
NOTES:
[3] $V_{BE(SAT)}$ @ I_C/I_B (V @ A/A)

NPN TO-114

$I_{C(MAX)}$ = 70A $V_{CEO(SUS)}$ = 80 to 150V f_T = 0.1 MHz

Type #	$V_{CEO(SUS)}$ (Volts)	h_{FE} @ I_C/V_{CE} (Min-Max @ A/V)	$V_{CE(SAT)}$ @ I_C/I_B (V @ A/A)	V_{BE} @ I_C/V_{CE} (V @ A/V)	I_{CEV} @ V_{CE} (mA @ V)	P_D @ T_C =100°C (Watts)	θ_{JC} (°C/W)	$I_{S/b}$ @ V_{CE} t = 1sec (A @ V)	f_T (MHz)	t_{ON} @ I_C/I_B (µs @ A/A)	t_{OFF} @ I_C/I_B (µs @ A/A)	Generic Product	General Information
2N3149	80	>10@50/3	1.5@50/10	2.5[3]@50/10	2@80	200	0.5		0.1	10@50/10	20@50/10	**2N3149 Family.** 476 Mil Diameter Chip. Single Diffused Process Clip Leads. Case 600	High Current, High Power Amplifier and Switch. Military Usage.
2N3150	100	>10@50/3	1.5@50/10	2.5[3]@50/10	2@100	200	0.5		0.1	10@50/10	20@50/10		
2N3151	150	>10@50/3	1.5@50/10	2.5[3]@50/10	2@150	200	0.5		0.1	10@50/10	20@50/10		
Typical Values	**110**	**8-60@50/3**	**1.2@50/10**	**2[3]@50/10**	**1@110**	**200**	**0.5**	**4@50**	**0.5**	**9@50/10**	**17@50/10**		

[3] $V_{BE(SAT)}$ @ I_C/I_B (V @ A/A)



germanium power transistors

PNP TO-5

$I_{C(MAX)}$ = 3A $V_{CEO(SUS)}$ = 30 to 60V

Type #	$V_{CEO(SUS)}$ (Volts)	V_{EBO} (Volts)	h_{FE} @ I_C/V_{CE} (Min-Max @ A/V)	$V_{CE(SAT)}$ @ I_C/I_B (V @ A/A)	V_{BE} @ I_C/V_{CE} (V @ A/V)	I_{CEV} @ V_{CE} (mA @ V)	P_D @ T_C = 25°C (Watts)	θ_{JC} (°C/W)	$T_{J(MAX)}$ (°C)	f_T (KHz)	Generic Product	General Information
2N1038	30	20	20-60@1/.5	.25@1/.1	1@1/.5	.65@40	20	3.75	100	225	**2N1038 Family.** 3 Amp PNP Germanium Alloy Power Transistors. Case 102	General Purpose Power Switch and Amplifier. Consumer, Industrial, and Military Usage.
2N1039	40	20	20-60@1/.5	.25@1/.1	1@1/.5	.65@60	20	3.75	100	225		
2N1040	50	20	20-60@1/.5	.25@1/.1	1@1/.5	.65@80	20	3.75	100	225		
2N1041	60	20	20-60@1/.5	.25@1/.1	1@1/.5	.65@100	20	3.75	100	225		
2N2564	30	20	20-60@3/1	.75@3/.3	1.5@3/1	.65@40	20	3.75	100	250		
2N2565	40	20	20-60@3/1	.75@3/.3	1.5@3/1	.65@60	20	3.75	100	250		
2N2566	50	20	20-60@3/1	.75@3/.3	1.5@3/1	.65@80	20	3.75	100	250		
2N2567	60	20	20-60@3/1	.75@3/.3	1.5@3/1	.65@100	20	3.75	100	250		
2N2659	30	20	30-90@.5/.5	.2@.5/.05	.6@.5/.5	.6@50	15	5.0	100	280		
2N2660	40	20	30-90@.5/.5	.2@.5/.05	.6@.5/.5	.6@70	15	5.0	100	280		
2N2661	50	20	30-90@.5/.5	.2@.5/.05	.6@.5/.5	.6@90	15	5.0	100	280		
2N2665	30	20	50-150@.5/.5	.25@.5/.025	.6@.5/.5	.6@50	15	5.0	100	300		
2N2666	40	20	50-150@.5/.5	.25@.5/.025	.6@.5/.5	.6@70	15	5.0	100	300		
2N2667	50	20	50-150@.5/.5	.25@.5/.025	.6@.5/.5	.6@90	15	5.0	100	300		