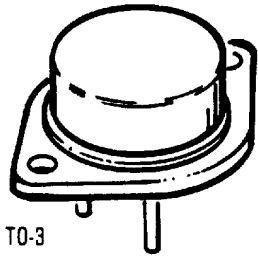


POWER SWITCHING TRANSISTORS

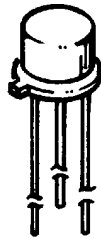
Screened to equivalent per JANTX or JANTXV levels on request

T.35-19

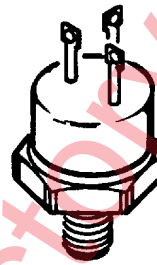
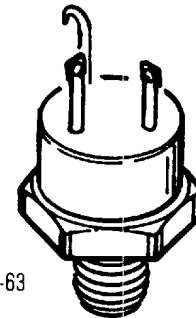
Case Style (shown actual size)



TO-3



TO-5/39

TO-59
IsolatedTO-61
Isolated

TO-63

Discrete Power Switching Transistors

Part No.	Case Style	I _c (Oper) (Amps)	I _c (Max.) (Cont) (Amps)	V _{CEO} (Min., Sus) (Volts)	V _{CSO} (Min.) (Volts)	V _{ESD} (Min.) (Volts)	HFE @ Rated I _c (Amps)	V _{CE(SAT)} (Max.) (Volts)	T _{off} (Max.) (μsec)
SVT100-5	TO-5/39	5.0	5.0	100	100	6.0	40 @ 1 A	1.0	0.4
SVT200-5C	TO-3	5.0	10	200	225	7.0	15 @ 5 A	1.0	3.0
SVT250-3C	TO-3	3.0	5.0	250	275	6.0	15 @ 3 A	1.0	2.0
SVT250-5C	TO-3	5.0	10.0	250	275	6.0	15 @ 5 A	1.0	2.0
SVT300-3C	TO-3	3.0	5.0	300	325	6.0	15 @ 3 A	1.0	2.0
SVT300-5C	TO-3	5.0	10	300	325	6.0	15 @ 5 A	1.0	2.0
SVT350-3C	TO-3	3.0	5.0	350	350	7.0	15 @ 3 A	1.2	3.0
SVT350-5C	TO-3	5.0	10	350	350	7.0	15 @ 5 A	1.2	3.0
SVT400-3C	TO-3	3.0	5.0	400	400	7.0	15 @ 3 A	1.2	3.0
SVT400-5C	TO-3	5.0	10	400	400	7.0	15 @ 5 A	1.2	3.0
SVT450-3C	TO-3	3.0	5.0	450	450	7.0	15 @ 3 A	1.2	3.0
SVT450-5C	TO-3	5.0	10	450	450	7.0	15 @ 5 A	1.2	3.0
SVT60-5	TO 5/39	5.0	5.0	60	60	6.0	40 @ 1 A	1.0	0.4
SVT80-5	TO 5/39	5.0	5.0	80	80	6.0	40 @ 1 A	1.0	0.4
2N4305	TO-5/39	5.0	5.0	80	120	6.0	50-150 @ 1 A	1.0	0.4
2N4307	TO-5/39	5.0	5.0	60	100	6.0	50-150 @ 1 A	1.0	0.4
2N4309	TO-5/39	5.0	5.0	80	120	6.0	40-120 @ 1 A	1.0	0.4
2N4311	TO-5/39	5.0	5.0	60	100	6.0	40-120 @ 1 A	1.0	0.4
2N5154	TO-5/39	5.0	10	80	100	6.0	70-200 @ 2.5 A	0.75	1.0
2N5326	TO-59	5.0	5.0	80	120	6.0	50-150 @ 1 A	1.0	0.4
2N5328	TO-59	10	10	70	100	5.0	100-300 @ 1 A	0.6	0.9
2N5329	TO 61	20	30	90	150	8.0	40-120 @ 10 A	1.8	1.1
2N5330	TO-61	30	30	90	150	8.0	10 @ 30 A	0.6	1.25
2N5331	TO-63	30	30	90	150	8.0	10 @ 30 A	0.6	0.25
2N6579	TO-3	5.0	10	350	450	9.0	7-35 @ 5 A	1.5	2.5
2N6580	TO-3	5.0	10	400	500	9.0	7-35 @ 5 A	1.5	2.5
2N6581	TO-3	5.0	10	450	550	9.0	7-35 @ 5 A	1.5	2.5
2N6582	TO-3	7.0	10	350	450	9.0	7-35 @ 7 A	1.5	2.5
2N6583	TO-3	7.0	10	400	500	9.0	7-35 @ 7 A	1.5	2.5
2N6584	TO-3	7.0	10	450	550	9.0	7-35 @ 7 A	1.5	2.5
2N6585	TO-61	5.0	10	350	450	9.0	7-35 @ 5 A	1.5	2.5
2N6586	TO 61	5.0	10	400	500	9.0	7-35 @ 5 A	1.5	2.5
2N6587	TO-61	5.0	10	450	550	9.0	7-35 @ 5 A	1.5	2.5
2N6588	TO-61	7.0	10	350	450	9.0	7-35 @ 7 A	1.5	2.5
2N6589	TO-61	7.0	10	400	500	9.0	7-35 @ 7 A	1.5	2.5
2N6590	TO-61	7.0	10	450	550	9.0	7-35 @ 7 A	1.5	2.5

Monolithic Darlington Power Switching Transistors

Part No.	Case Style	I _c (Cont) (Amps)	I _c (PK) (Amps)	V _{CEO} (Min., Sus) (Volts)	V _{CSO} (Min.) (Volts)	HFE (Min.) @ I _c = 10 A	V _{CE(SAT)} (Max.) (Volts)	V _{BE(SAT)} (Max.) (Volts)	T _{off} (Max.) (μsec)
SVT6000H	TO-3	15	20	300	400	60	1.6	2.5	1.2
SVT6001H	TO-3	15	20	350	450	60	1.6	2.5	1.2
SVT6002H	TO-3	15	20	400	500	60	1.6	2.5	1.2
SVT6060H	TO-3	20	25	300	400	100	1.5	2.5	1.2
SVT6061H	TO-3	20	25	350	450	100	1.5	2.5	1.2
SVT6062H	TO-3	20	25	400	500	100	1.5	2.5	1.2
SVT6251H	TO-3	10	15	350	400	40	2.5	2.5	1.5
SVT6252H	TO-3	10	15	400	450	40	2.5	2.5	1.5
SVT6253H	TO-3	10	15	450	500	40	2.5	2.5	1.5

Ultra-Fast Power Diodes

These devices are designed for use in power control and conversion circuits where high efficiency and reliability, coupled with small size and weight are requirements. The ultra-fast switching

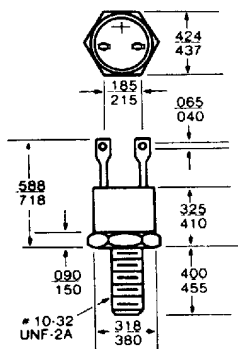
speed provides important reliability and performance advantages in switching regulators, converters, inverters that operate at 15 to 20kHz and above.

Electrical Characteristics (T_{CASE} = 25°C)

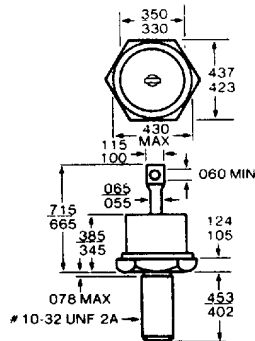
Type	PIV Vdc	I _F Adc	V _F @ I _F Vdc	I _R @ PIV μ A	I _{SURGE} * A	T _{RR} MAX (1A to 1A to 1/2A) nsec	θ_{JC} °C/W	Package
SVD50-6	50	6	1.2	10	60	50	2.5	DO-4 DO 4 Isolated
SVD50-12	50	12	1.2	10	120	50	2.5	DO 4, DO-4 Isolated
SVD50-30	50	30	1.2	10	200	70	1.5	DO-5, DO 5 Isolated
SVD100-6	100	6	1.2	10	60	50	2.5	DO-4, DO 4 Isolated
SVD100-12	100	12	1.2	10	120	50	2.5	DO-4, DO 4 Isolated
SVD100-30	100	30	1.2	10	200	70	1.5	DO-5, DO 5 Isolated
1N5410	150	12	1.0	10	200	70	2.0	DO 4
1N5409	150	30	1.2	10	200	70	1.5	DO 5
SVD300-12	300	12	1.5	10	120	70	2.5	DO-4 DO-4 Isolated
SVD350-12	350	12	1.5	10	120	70	2.5	DO 4, DO 4 Isolated
SVD400-12	400	12	1.5	10	120	70	2.5	DO 4 DO 4 Isolated
SVD450-12	450	12	1.5	10	120	70	2.5	DO-4, DO-4 Isolated

Storage Temperature: -65°C to +175°C
 Operating Temperature: -65°C to +175°C
 *1msec operating surge. T_{CASE} = 100°C, duty cycle <1%

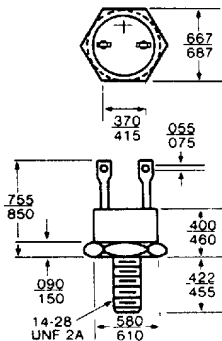
DO-4 Isolated



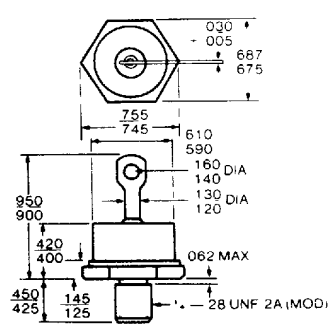
DO-4



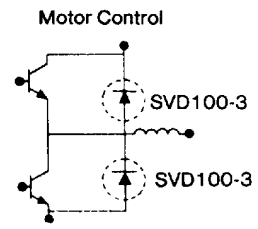
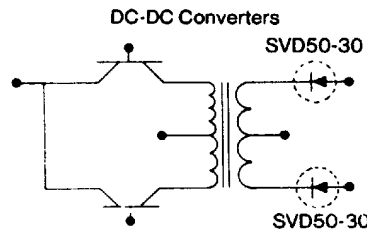
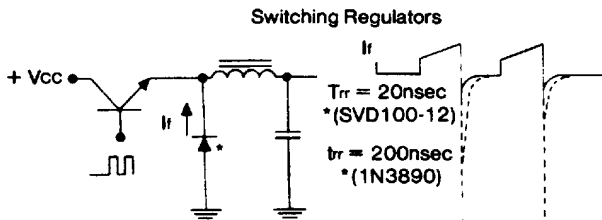
DO-5 Isolated



DO-5



Typical Circuit Applications



Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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