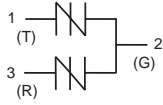


## Two-chip SIDACtor Device



The two-chip modified TO-220 *SIDACtor* solid state device protects telecommunication equipment in applications that reference Tip and Ring to earth ground but do not require balanced protection.

*SIDACtor* devices are used to enable equipment to meet various regulatory requirements including GR 1089, ITU K.20, K.21 and K.45, IEC 60950, UL 60950, and TIA-968 (formerly known as FCC Part 68).

### Electrical Parameters

Part Number *	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps	C <sub>O</sub> pF
	Pins 1-2, 3-2		Pins 1-3							
P0602A_	25	40	50	80	4	5	800	2.2	50	110
P1402A_	58	77	116	154	4	5	800	2.2	150	50
P1602A_	65	95	130	190	4	5	800	2.2	150	50
P2202A_	90	130	180	260	4	5	800	2.2	150	40
P2702A_	120	160	240	320	4	5	800	2.2	150	40
P3002A_	140	180	280	360	4	5	800	2.2	150	40
P3602A_	170	220	340	440	4	5	800	2.2	150	40
P4202A_	190	250	380	500	4	5	800	2.2	150	30
P4802A_	220	300	440	600	4	5	800	2.2	150	30
P6002A_	275	350	550	700	4	5	800	2.2	150	30

\* For individual "AA", "AB", and "AC" surge ratings, see table below.

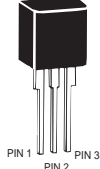
#### General Notes:

- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V<sub>DRM</sub> is measured at I<sub>DRM</sub>.
- V<sub>S</sub> is measured at 100 V/ $\mu$ s.
- Special voltage (V<sub>S</sub> and V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.
- Off-state capacitance is measured between Pins 1-2 and 3-2 at 1 MHz with a 2 V bias and is a typical value for "AA" product. "AB" and "AC" capacitance is approximately 2x the listed value.

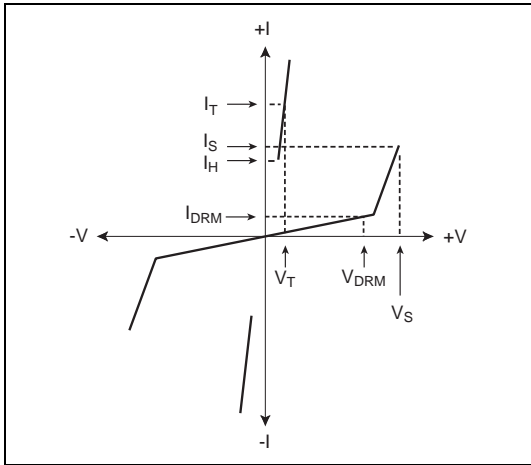
### Surge Ratings

Series	I <sub>PP</sub> 2x10 $\mu$ s Amps	I <sub>PP</sub> 8x20 $\mu$ s Amps	I <sub>PP</sub> 10x160 $\mu$ s Amps	I <sub>PP</sub> 10x560 $\mu$ s Amps	I <sub>PP</sub> 10x1000 $\mu$ s Amps	I <sub>TSM</sub> 60 Hz Amps	di/dt Amps/ $\mu$ s
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

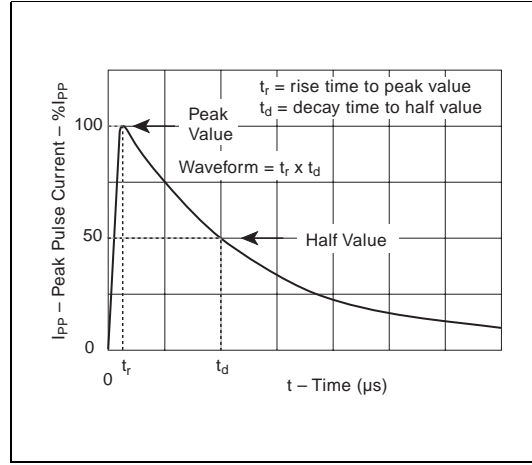
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
Modified TO-220 	$T_J$	Operating Junction Temperature Range	-40 to +150	$^{\circ}\text{C}$
	$T_S$	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	50	$^{\circ}\text{C/W}$

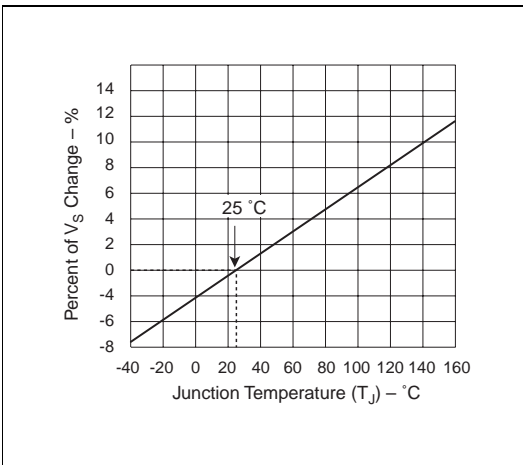
Data Sheets



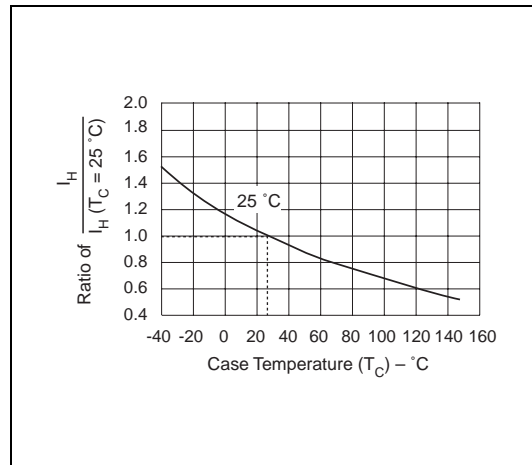
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature