

SIDACtor Device

## SIDACtor Device



DO-214AA SIDACtor solid state protection devices protect telecommunications equipment such as modems, line cards, fax machines, and other CPE.

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>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
P0080S_	6	25	4	5	800	2.2	50	100
P0300S_	25	40	4	5	800	2.2	50	110
P0640S_	58	77	4	5	800	2.2	150	50
P0720S_	65	88	4	5	800	2.2	150	50
P0900S_	75	98	4	5	800	2.2	150	50
P1100S_	90	130	4	5	800	2.2	150	40
P1300S_	120	160	4	5	800	2.2	150	40
P1500S_	140	180	4	5	800	2.2	150	40
P1800S_	170	220	4	5	800	2.2	150	30
P2300S_	190	260	4	5	800	2.2	150	30
P2600S_	220	300	4	5	800	2.2	150	30
P3100S_	275	350	4	5	800	2.2	150	30
P3500S_	320	400	4	5	800	2.2	150	30

\* For individual "SA", "SB", and "SC" surge ratings, see table below.

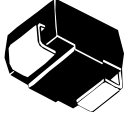
#### General Notes:

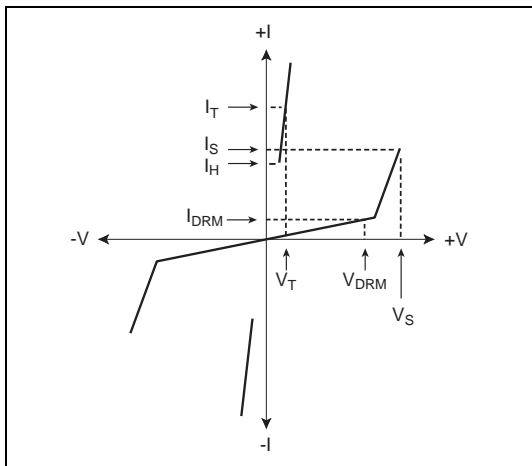
- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACtor devices are bi-directional. All electrical parameters and surge 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 at 1 MHz with a 2 V bias and is a typical value for "SA" and "SB" product. "SC" capacitance is approximately 2x the listed value. The off-state capacitance of the P0080SB is equal to the "SC" device.

### Surge Ratings

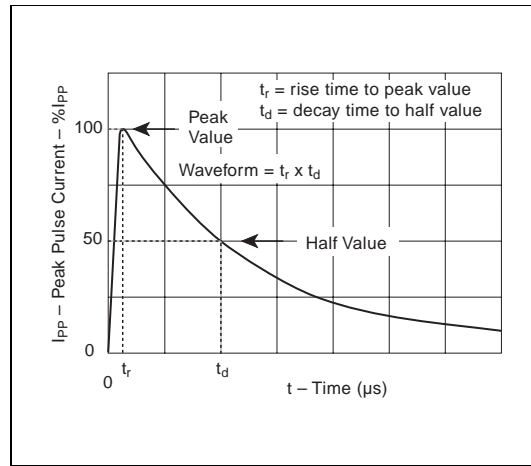
Series	I <sub>PP</sub> 2x10 $\mu$ s Amps	I <sub>PP</sub> 8x20 $\mu$ s Amps	I <sub>PP</sub> 10x160 $\mu$ s Amps	I <sub>PP</sub> 10x560 $\mu$ s Amps	I <sub>PP</sub> 10x1000 $\mu$ s Amps	I <sub>TSM</sub> 60 Hz Amps	di/dt Amps/ $\mu$ s
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150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

Thermal Considerations

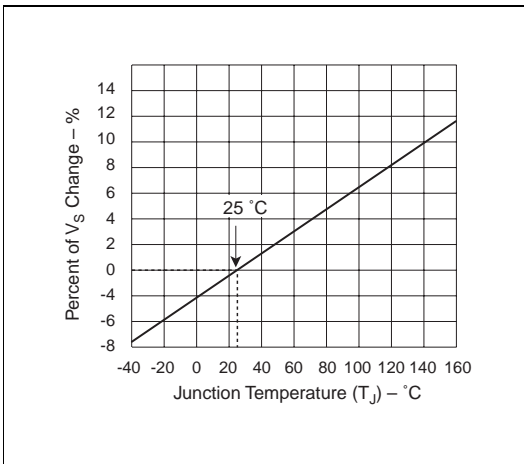
Package	Symbol	Parameter	Value	Unit
	$T_J$	Operating Junction Temperature Range	-40 to +150	$^{\circ}\text{C}$
	$T_S$	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	$^{\circ}\text{C/W}$



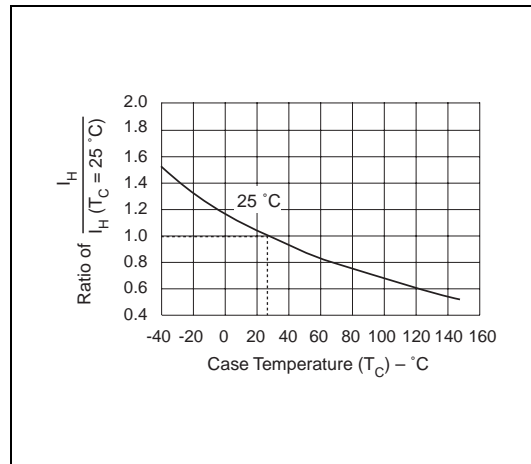
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets