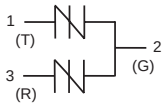
Two-chip *SIDACtor* Device



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_{DRM} Volts	V_S Volts	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H mAmps	C_O 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

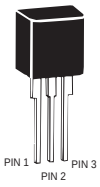
* For individual “AA”, “AB”, and “AC” surge ratings, see table below.

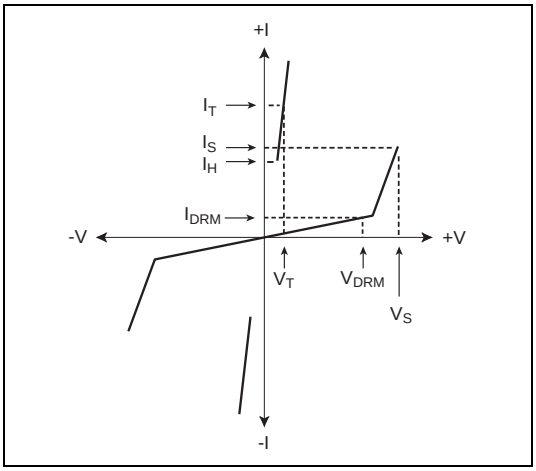
General Notes:
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 100 V/µs.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.
- Off-state capacitance (C_O) 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

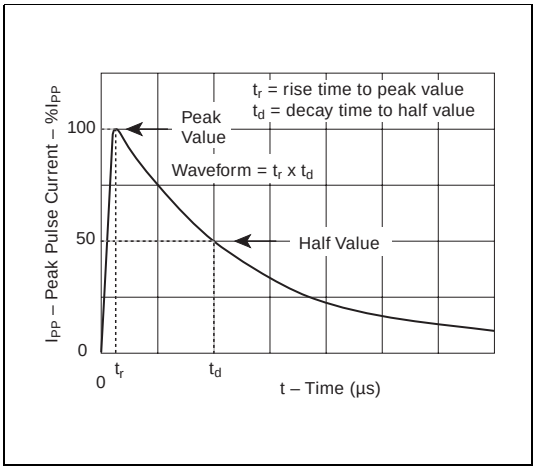
Series	I_{PP} 2x10 µs Amps	I_{PP} 8x20 µs Amps	I_{PP} 10x160 µs Amps	I_{PP} 10x560 µs Amps	I_{PP} 10x1000 µs Amps	I_{TSM} 60 Hz Amps	di/dt Amps/µs
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

Thermal Considerations

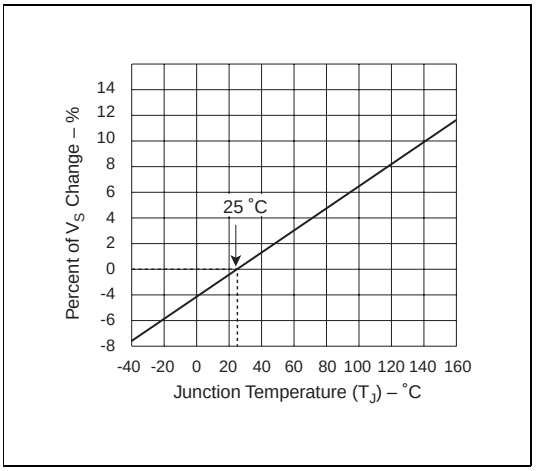
Package	Symbol	Parameter	Value	Unit
Modified TO-220 	T_J	Operating Junction Temperature Range	-40 to +150	°C
	T_S	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	50	°C/W



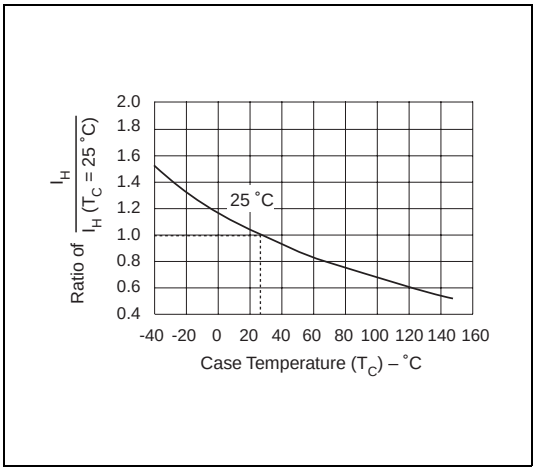
V-I Characteristics



t_r x t_d Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature