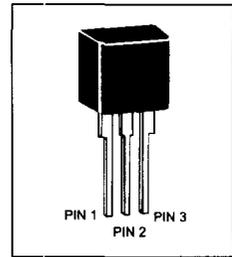


## Two Chip TO-220 SIDACTor

The two chip modified TO-220 SIDACTor is a solid state protection device designed for telecommunications applications that reference Tip and Ring to earth ground but do not require balanced protection.

The SIDACTor is used to help meet various regulatory requirements including: GR 1089, ITU K.20 & K.21, IEC 950, UL 1459 & 1950 and FCC Part 68.



### Electrical Parameters

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

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

#### 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 SIDACTors are bi-directional. All electrical parameters & 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 100V/μs.
- Special voltage (V<sub>S</sub> & 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 1MHz with a 2 volt bias and is a typical value for "AA" and "AB" product. "AC" capacitance is approximately 2x the listed value.

### Surge Ratings

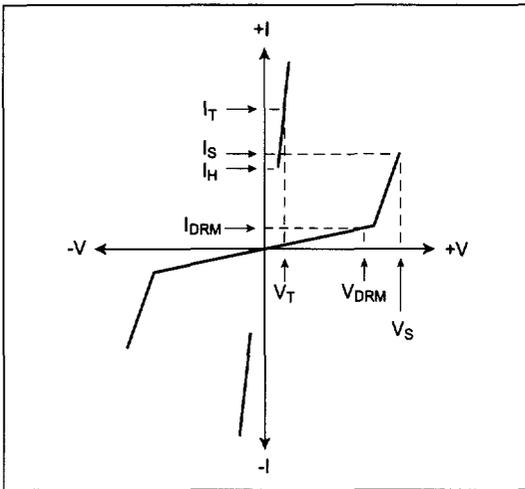
Series	I <sub>PP</sub> 2x10μs Amps	I <sub>PP</sub> 8x20μs Amps	I <sub>PP</sub> 10x160μs Amps	I <sub>PP</sub> 10x560μs Amps	I <sub>PP</sub> 10x1000μs Amps	I <sub>TSM</sub> 60Hz Amps	dI/dt Amps/μs
AA		150	100	50		20	500
AB		250	150	100		30	500
AC	500	400	200		100	60	500

**Thermal Considerations**

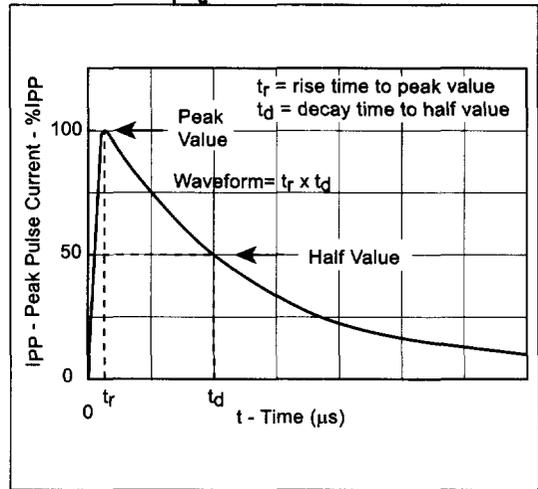
Package	Symbol	Parameter	Value	Unit
Modified TO-220	$T_j$	Junction Temperature Range	-40 to +150	°C
	$T_s$	Storage Temperature Range	-65 to +150	°C
	$T_c$	Maximum Case Temperature	+115	°C
	$R_{\theta jc}$	Thermal Resistance: junction to case	+12	°C/W
	$R_{\theta ja}$	Thermal Resistance: junction to ambient	+50	°C/W

Data Sheets

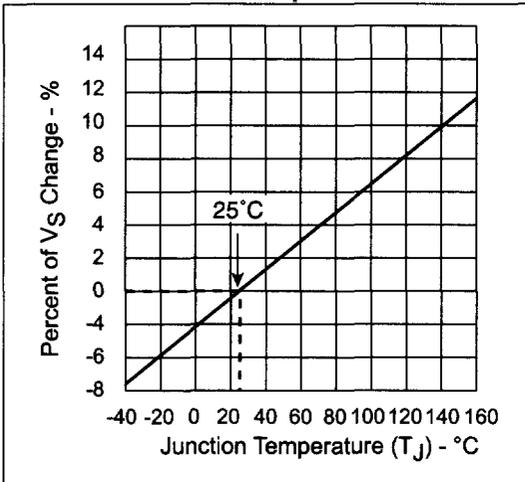
**V-I Characteristics**



**$t_r, t_d$  Pulse Wave-form**



**Normalized  $V_S$  Change vs. Junction Temperature**



**Normalized DC Holding Current vs. Case Temperature**

