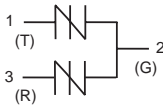


## Two-chip MicroCapacitance (MC) SIDACtor Device



The two-chip modified TO-220 MC 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: A-rated

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> μAmps	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							
P0302AA MC	6	25	12	50	4	5	800	2.2	50	45
P0602AA MC	25	40	50	80	4	5	800	2.2	50	25

### Electrical Parameters: C-rated

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> μAmps	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							
P0602AC MC	25	40	50	80	4	5	800	2.2	50	60
P1402AC MC	58	77	116	154	4	5	800	2.2	150	60
P1602AC MC	65	95	130	190	4	5	800	2.2	150	60
P2202AC MC	90	130	180	260	4	5	800	2.2	150	50
P2702AC MC	120	160	240	320	4	5	800	2.2	150	50
P3002AC MC	140	180	280	360	4	5	800	2.2	150	50
P3602AC MC	170	220	340	440	4	5	800	2.2	150	40
P4202AC MC	190	250	380	500	4	5	800	2.2	150	40
P4802AC MC	220	300	440	600	4	5	800	2.2	150	40
P6002AC MC	275	350	550	700	4	5	800	2.2	150	40

\* For surge ratings, see table below.

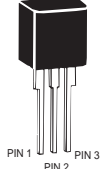
#### General Notes:

- 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/μs.
- 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 (C<sub>O</sub>) is measured between Pins 1-2 and 3-2 at 1 MHz with a 2 V bias.

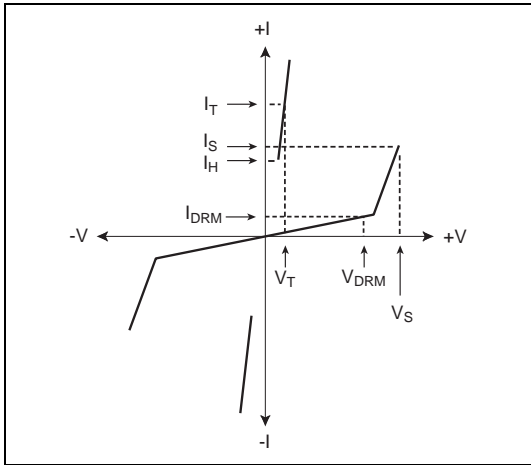
### Surge Ratings

Series	I <sub>PP</sub> 2x10 μs Amps	I <sub>PP</sub> 8x20 μs Amps	I <sub>PP</sub> 10x160 μs Amps	I <sub>PP</sub> 10x560 μs Amps	I <sub>PP</sub> 10x1000 μs Amps	I <sub>TSM</sub> 60 Hz Amps	di/dt Amps/μs
A	150	150	90	50	45	20	500
C	500	400	200	150	100	50	500

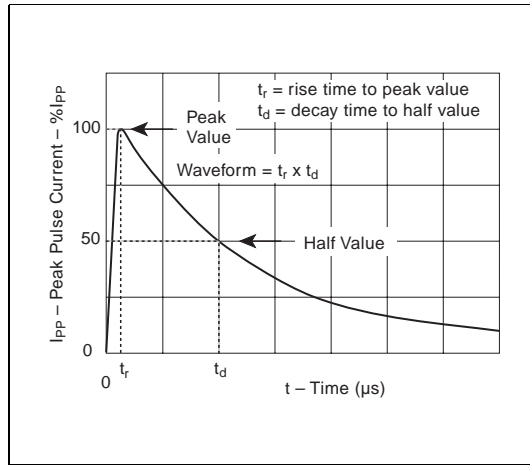
Thermal Considerations

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	$^{\circ}\text{C/W}$

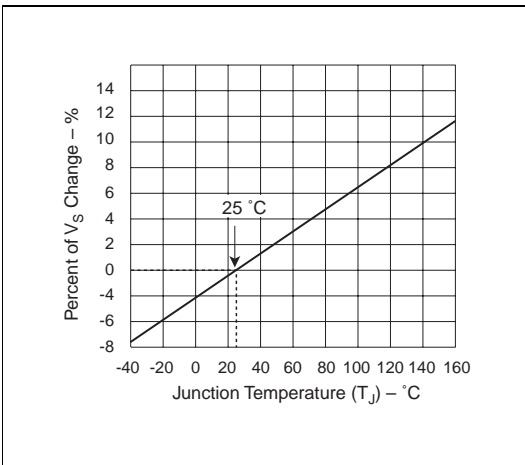
Data Sheets



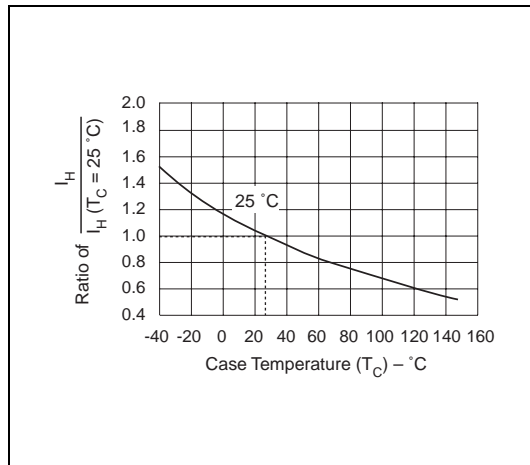
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature