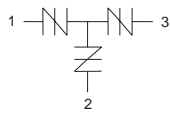


## Balanced Three-chip MicroCapacitance (MC) SIDACtor Device



The balanced three-chip TO-220 MC SIDACtor solid state device protects telecommunication equipment in high-speed applications that are sensitive to load values and that require a lower capacitance.  $C_O$  values for the MC are 40% lower than a standard AC part.

This MC SIDACtor series is 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-A (formerly known as FCC Part 68) without the need of series resistors.

### Electrical Parameters

Part Number *	$V_{DRM}$ Volts	$V_S$ Volts	$V_{DRM}$ Volts	$V_S$ Volts	$V_T$ Volts	$I_{DRM}$ $\mu$ Amps	$I_S$ mAmps	$I_T$ Amps	$I_H$ mAmps	$C_O$ pF
	Pins 1-2, 2-3		Pins 1-3							
P1553AC MC	130	180	130	180	8	5	800	2.2	150	40
P1803AC MC	150	210	150	210	8	5	800	2.2	150	40
P2103AC MC	170	250	170	250	8	5	800	2.2	150	40
P2353AC MC	200	270	200	270	8	5	800	2.2	150	40
P2703AC MC	230	300	230	300	8	5	800	2.2	150	30
P3203AC MC	270	350	270	350	8	5	800	2.2	150	30
P3403AC MC	300	400	300	400	8	5	800	2.2	150	30
P5103AC MC	420	600	420	600	8	5	800	2.2	150	30

\* For surge ratings, see table below.

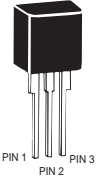
#### General Notes:

- 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/ $\mu$ s.
- 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.
- Device is designed to meet balance requirements of GTS 8700 and GR 974.

### Surge Ratings

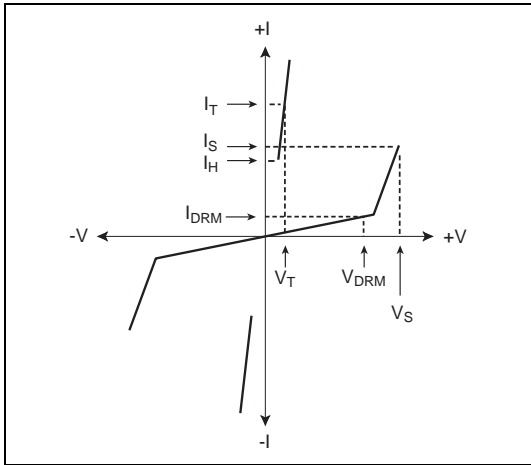
Series	$I_{PP}$ 2x10 $\mu$ s Amps	$I_{PP}$ 8x20 $\mu$ s Amps	$I_{PP}$ 10x160 $\mu$ s Amps	$I_{PP}$ 10x560 $\mu$ s Amps	$I_{PP}$ 10x1000 $\mu$ s Amps	$I_{TSM}$ 60 Hz Amps	di/dt Amps/ $\mu$ s
C	500	400	200	150	100	50	500

Thermal Considerations

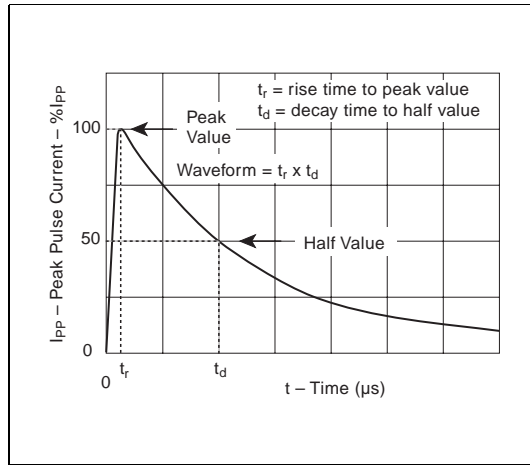
Package	Symbol	Parameter	Value	Unit
Modified TO-220 	$T_J$	Operating Junction Temperature Range	-40 to +150	$^{\circ}\text{C}$
	$T_S$	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	50	$^{\circ}\text{C/W}$

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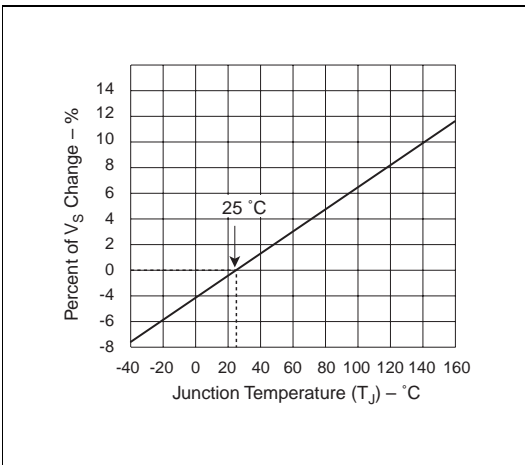
Data Sheets



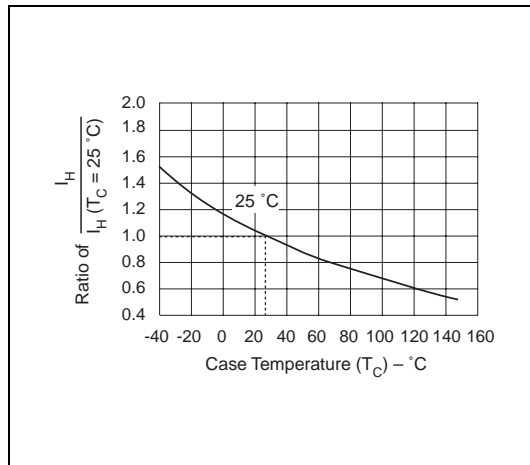
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature