## MicroCapacitance (MC) SIDACtor Device



The TO-92 MC *SIDACtor* series is intended for applications sensitive to load values. Typically, high speed connections require a lower capacitance.  $C_0$  values for MC devices are 40% lower than a standard EC 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 <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	Ι <sub>DRM</sub> μAmps	l <sub>S</sub> mAmps	l <sub>T</sub> Amps	l <sub>H</sub> mAmps	C <sub>O</sub> pF
P0640EC MC	58	77	4	5	800	2.2	150	60
P1500EC MC	140	180	4	5	800	2.2	150	50
P2600EC MC	220	300	4	5	800	2.2	150	40
P3100EC MC	275	350	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.

• IPP 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 at 1 MHz with a 2 V bias.

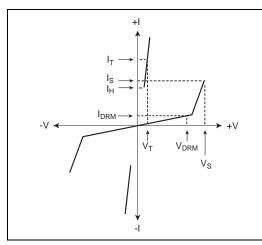
## Surge Ratings

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

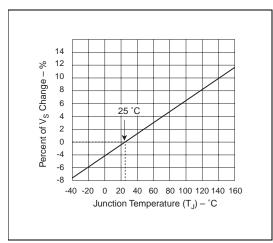
**Data Sheets** 

## Thermal Considerations

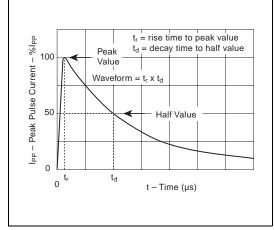
Package	Symbol	Symbol Parameter		Unit	
	TJ	Operating Junction Temperature Range	-40 to +150	°C	
TO-92	Ts	Storage Temperature Range	-65 to +150	°C	
	R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	90	°C/W	



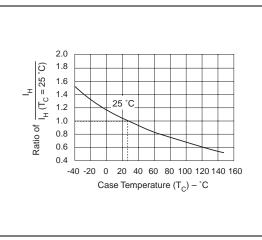
V-I Characteristics



Normalized V<sub>S</sub> Change versus Junction Temperature



t<sub>r</sub> x t<sub>d</sub> Pulse Wave-form



Normalized DC Holding Current versus Case Temperature