

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_O 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_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} μ Amps	I_S mAmps	I_T Amps	I_H mAmps	C_O 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:

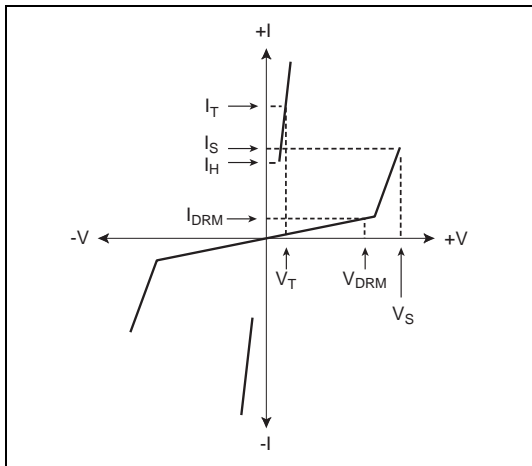
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM} .
- V_S is measured at 100 V/ μ 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 at 1 MHz with a 2 V bias.

Surge Ratings

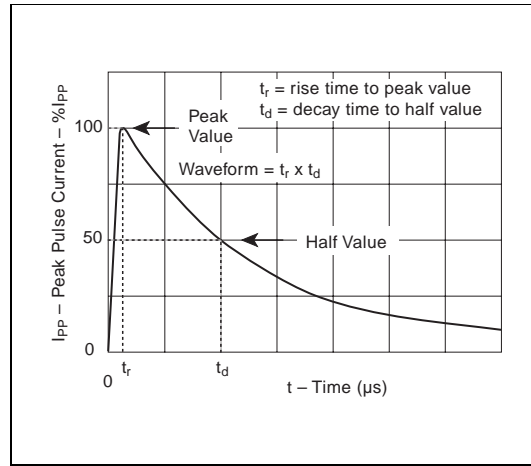
Series	I_{PP} 2x10 μ s Amps	I_{PP} 8x20 μ s Amps	I_{PP} 10x160 μ s Amps	I_{PP} 10x560 μ s Amps	I_{PP} 10x1000 μ s Amps	I_{TSM} 60 Hz Amps	di/dt Amps/ μ s
C	500	400	200	150	100	50	500

Thermal Considerations

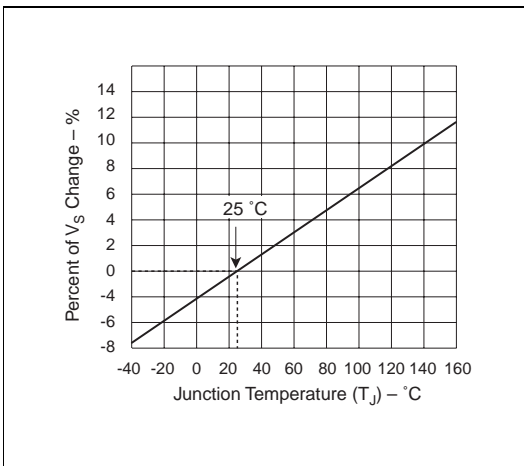
Package	Symbol	Parameter	Value	Unit
	T_J	Operating Junction Temperature Range	-40 to +150	$^{\circ}\text{C}$
	T_S	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	$^{\circ}\text{C/W}$



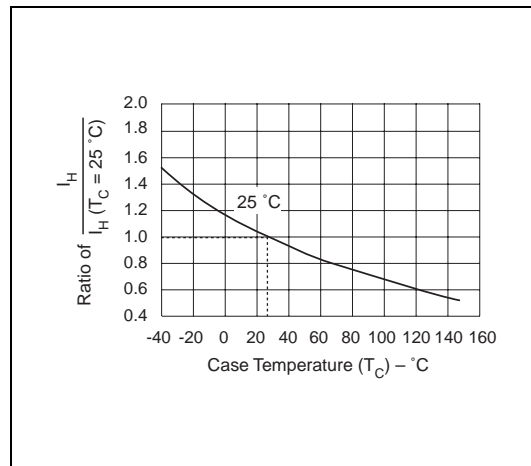
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets