

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:

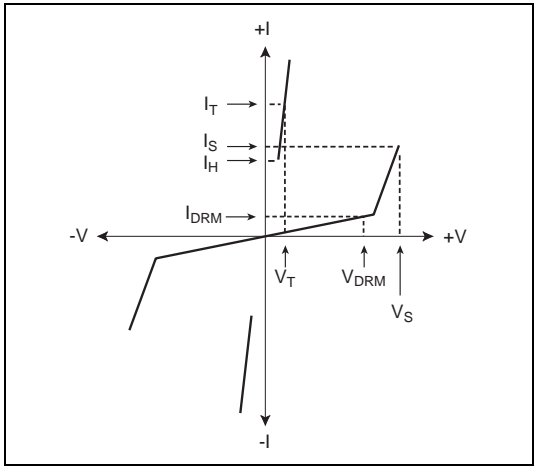
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and surge ratings apply 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

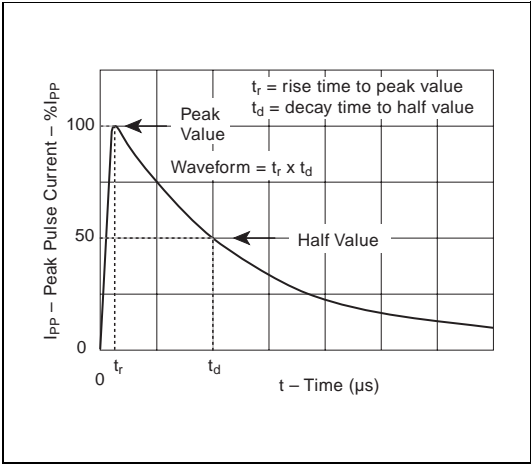
Series	I_{PP} 2x10 μ s Amps	I_{PP} 8x20 μ s Amps	I_{PP} 10x160 μ s Amps	I_{PP} 10x560 μ s Amps	I_{PP} 10x1000 μ s Amps	I_{TSM} 60 Hz Amps	di/dt Amps/ μ s
C	500	400	200	150	100	50	500

Thermal Considerations

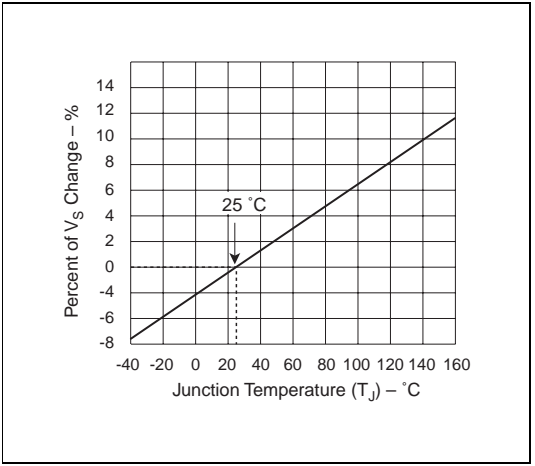
Package	Symbol	Parameter	Value	Unit
TO-92 	T_J	Operating Junction Temperature Range	-40 to +150	°C
	T_S	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W



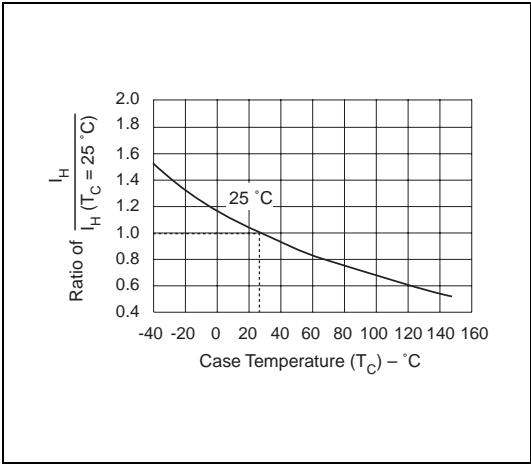
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature