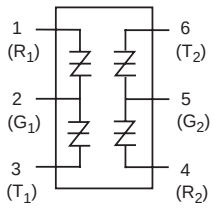
Multiport MicroCapacitance (MC) *SIDACtor* Device



The multiport MC line protector is an integrated, multichip solution for protecting multiple twisted pair from overvoltage conditions. It is intended for applications sensitive to load values. Typically, high speed connections require lower capacitance. C_O values for the MC devices are 40% lower than standard UC devices

Based on a six-pin surface mount SOIC package, it is equivalent to four discrete DO-214AA or two TO-220 packages, which makes it ideal for densely populated, high-speed line cards that cannot afford PCB inefficiencies or the use of series power resistors. Surge current ratings up to 500 A are available.

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-A (formerly known as FCC Part 68).

Electrical Parameters

Part Number *	V_{DRM} Volts	V_S Volts	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H mAmps	C_O pF
	Pins 1-2, 3-2, 4-5, 6-5		Pins 1-3, 4-6							
P0084UC MC	6	25	12	50	4	5	800	2.2	50	30
P0304UC MC	25	40	50	80	4	5	800	2.2	50	30
P0644UC MC	58	77	116	154	4	5	800	2.2	150	30
P0724UC MC	65	88	130	176	4	5	800	2.2	150	30
P0904UC MC	75	98	150	196	4	5	800	2.2	150	30
P1104UC MC	90	130	180	260	4	5	800	2.2	150	25
P1304UC MC	120	160	240	320	4	5	800	2.2	150	25
P1504UC MC	140	180	280	360	4	5	800	2.2	150	25
P1804UC MC	170	220	340	440	4	5	800	2.2	150	20
P2304UC MC	190	260	380	520	4	5	800	2.2	150	20
P2604UC MC	220	300	440	600	4	5	800	2.2	150	20
P3104UC MC	275	350	550	700	4	5	800	2.2	150	20
P3504UC MC	320	400	640	800	4	5	800	2.2	150	20

* For surge ratings, see table below.

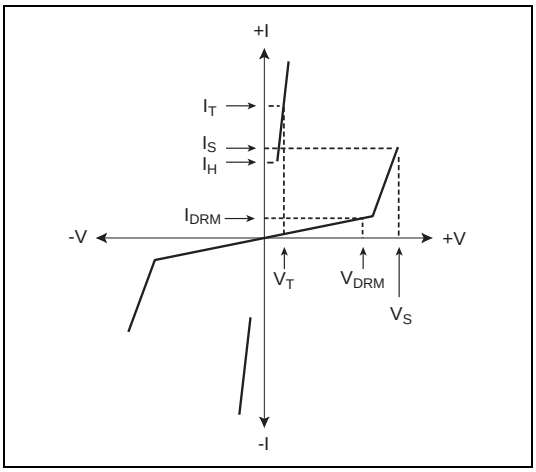
General Notes:
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and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

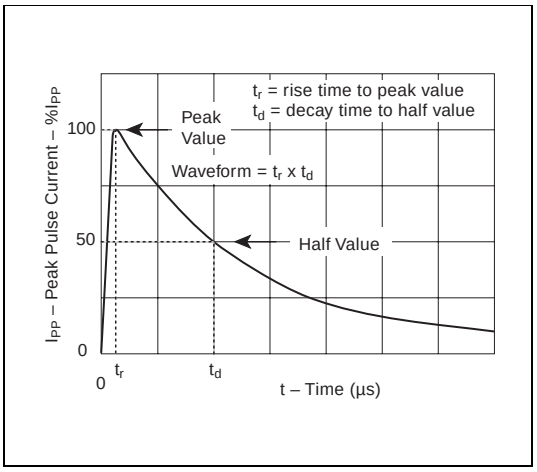
Series	I_{PP} 2x10 µs Amps	I_{PP} 8x20 µs Amps	I_{PP} 10x160 µs Amps	I_{PP} 10x560 µs Amps	I_{PP} 10x1000 µs Amps	I_{TSM} 60 Hz Amps	di/dt Amps/µs
C	500	400	200	150	100	50	500

Thermal Considerations

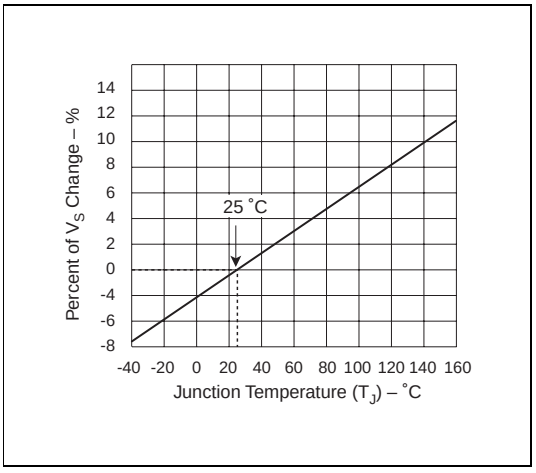
Package	Symbol	Parameter	Value	Unit
Modified MS-013 	T_J	Operating Junction Temperature Range	-40 to +150	°C
	T_S	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	60	°C/W



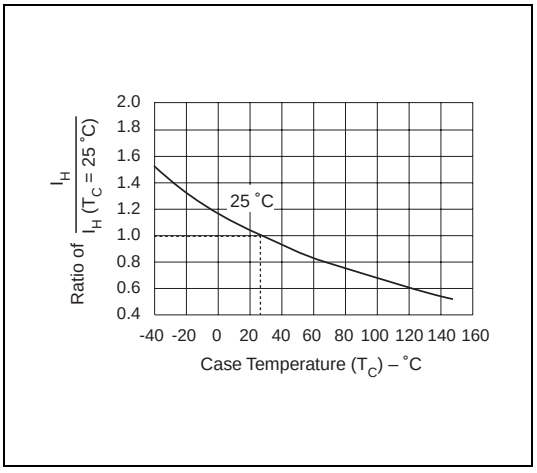
V-I Characteristics



t_r x t_d Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature