

SIDACtor Device



TO-92 *SIDACtor* solid state protection devices protect telecommunications equipment such as modems, line cards, fax machines, and other CPE.

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 _T Volts	I _{DRM} μ Amps	I _S mAmps	I _T Amps	I _H mAmps	C _O pF
P0080E_	6	25	4	5	800	2.2	50	100
P0300E_	25	40	4	5	800	2.2	50	110
P0640E_	58	77	4	5	800	2.2	150	50
P0720E_	65	88	4	5	800	2.2	150	50
P0900E_	75	98	4	5	800	2.2	150	50
P1100E_	90	130	4	5	800	2.2	150	40
P1300E_	120	160	4	5	800	2.2	150	40
P1500E_	140	180	4	5	800	2.2	150	40
P1800E_	170	220	4	5	800	2.2	150	30
P2300E_	190	260	4	5	800	2.2	150	30
P2600E_	220	300	4	5	800	2.2	150	30
P3100E_	275	350	4	5	800	2.2	150	30
P3500E_	320	400	4	5	800	2.2	150	30

* For individual "EA", "EB", and "EC" 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 and is a typical value for "EA" and "EB" product. "EC" capacitance is approximately 2x the listed value. The off-state capacitance of the P0080EB is equal to the "EC" device.

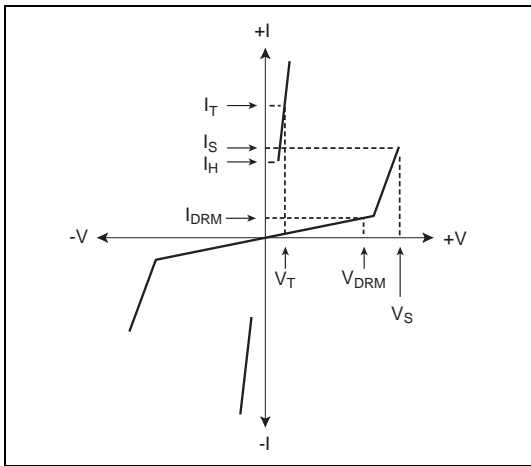
Surge Ratings

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
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

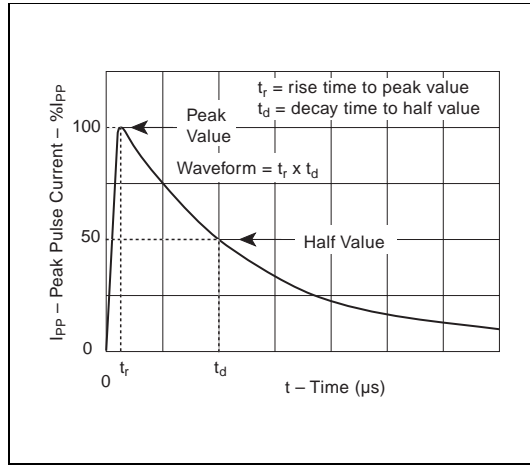
Thermal Considerations

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

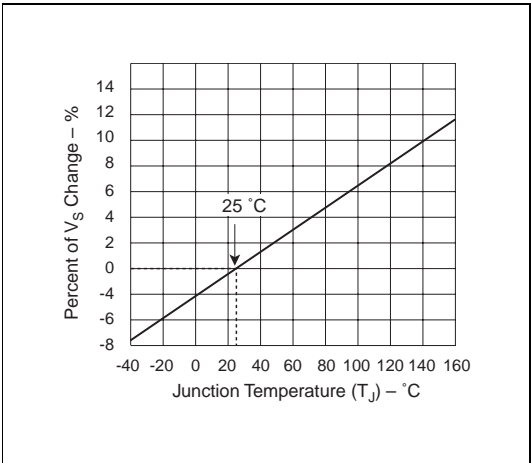
Data Sheets



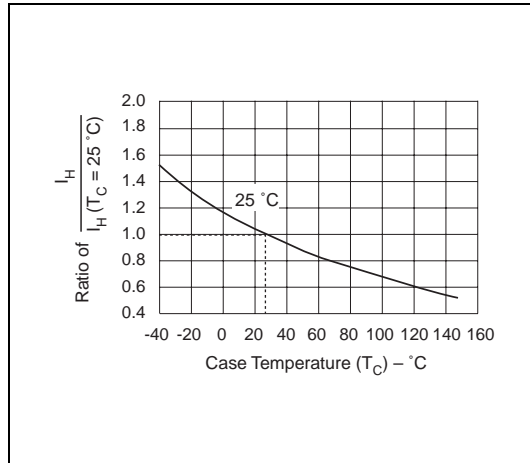
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature