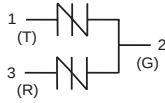


High Surge Current SIDACtor Device



This SIDACtor device is a 1000 A solid state protection device offered in a TO-220 package. It protects equipment located in the severe surge environment of Community Antenna TV (CATV) applications.

This device can replace the gas tubes traditionally used for station protection because SIDACtor devices have much tighter voltage tolerances.

Electrical Parameters

Part Number *	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 1-3
P6002AD	550	700	5.5	5	800	2.2	50	60

* For surge ratings, see table below.



Electrical Parameters

Part Number *	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 1-3
P3100AD	280	360	5.5	5	800	2.2	120	115

* For surge ratings, see table below.

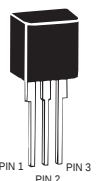
General Notes:

- 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 and is a typical value.

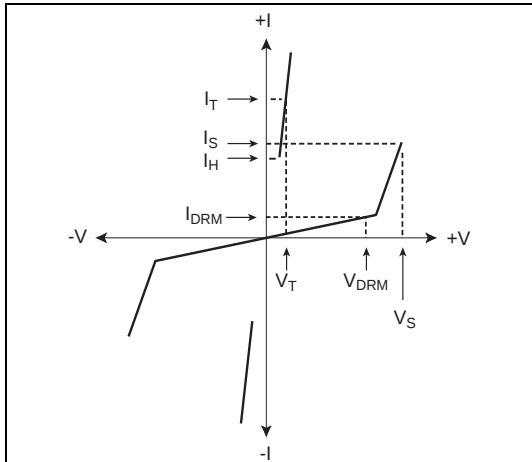
Surge Ratings

Series	I _{PP} 8x20 μs Amps	I _{PP} 10x1000 μs Amps	I _{TSM} 60 Hz Amps	di/dt Amps/μs
D	1000	250	120	500

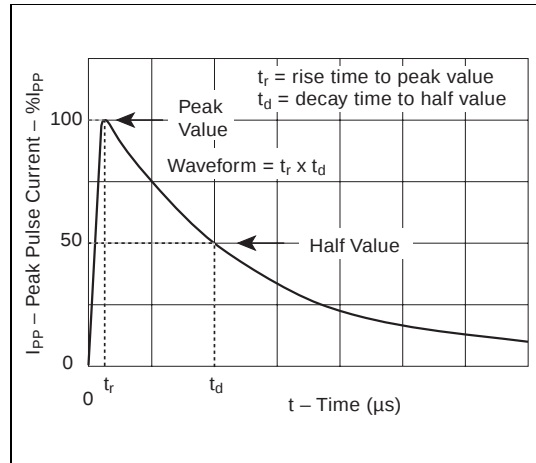
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
	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

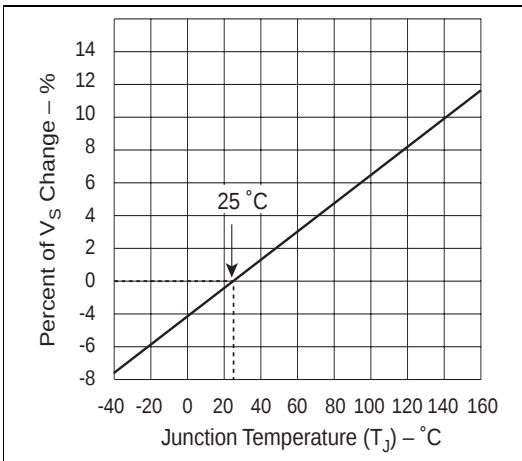
Note: P6002AD is shown. P3100AD has no center lead.



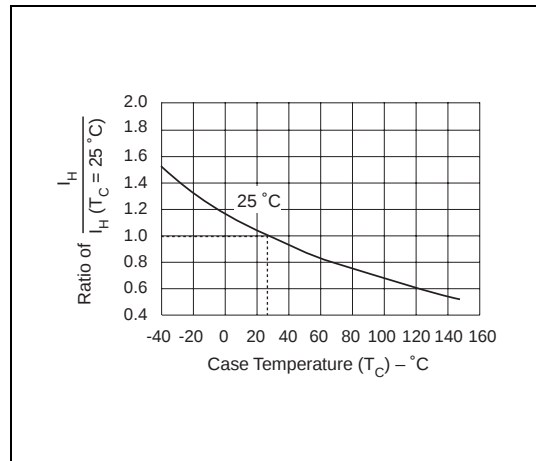
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature