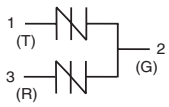
High Surge Current Three-pin *SIDACtor*® Device

RoHS

Littelfuse



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 CATV (Community Antenna TV) systems and antenna locations.

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
P6002ADL	550	700	5.5	5	800	2.2	50

* **"L" in part number indicates RoHS compliance.** For non-RoHS compliant device, delete "L" from part number.
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
P3100ADL	280	360	5.5	5	800	2.2	150

* **"L" in part number indicates RoHS compliance.** For non-RoHS compliant device, delete "L" from part number.
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.

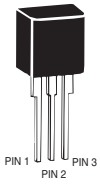
Surge Ratings in Amps

Series	I_{PP} 8x20 * 1.2x50 ** Amps	I_{PP} 10x1000 * 10x1000 ** Amps	I_{TSM} 50 / 60 Hz Amps	di/dt Amps/µs
D	1000	250	120	500

* Current waveform in µs
** Voltage waveform in µs

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

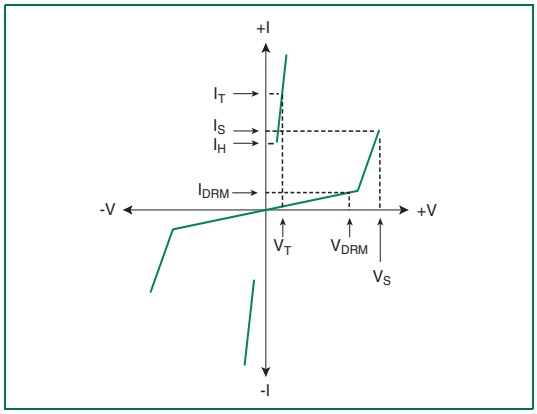
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
Modified TO-220 	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

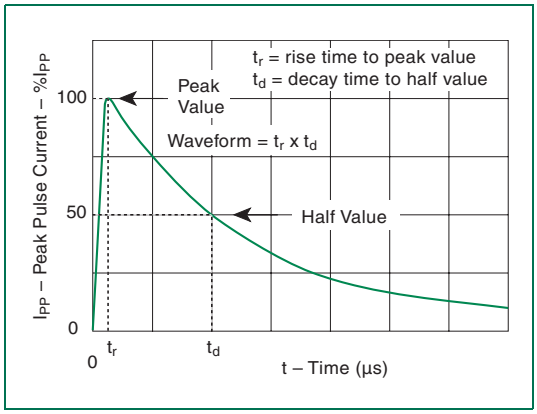
Capacitance Values

Part Number	pF	
	MIN	MAX
P6002ADL	60	200
P3100ADL	100	150

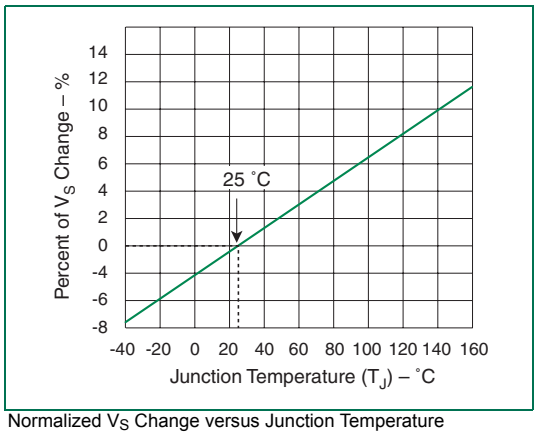
Note: Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias.



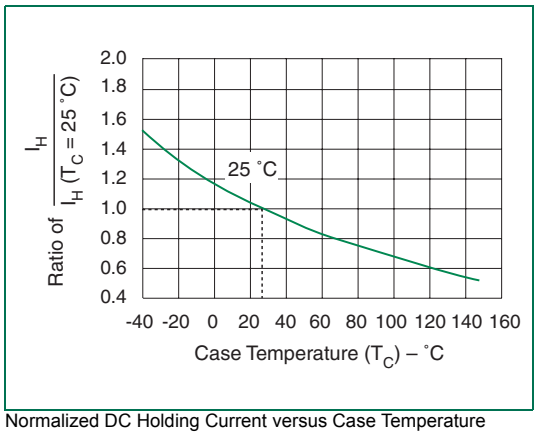
V-I Characteristics



t_r x t_d Pulse Waveform



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

P6002ADLRP P6002AD