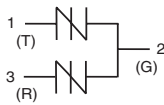


## High Surge Current Three-pin *SIDACtor*<sup>®</sup> Device



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 CATV (Community Antenna TV) systems and antenna locations.

### Electrical Parameters

Part Number *	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps
<b>P6002ADL</b>	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 <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps
<b>P3100ADL</b>	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<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> 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<sub>DRM</sub> is measured at I<sub>DRM</sub>.
- V<sub>S</sub> is measured at 100 V/ $\mu$ s.
- Special voltage (V<sub>S</sub> and V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.

### Surge Ratings in Amps

Series	I <sub>PP</sub>		I <sub>TSM</sub> 50 / 60 Hz	di/dt Amps/ $\mu$ s
	8x20 * 1.2x50 **	10x1000 * 10x1000 **		
	Amps	Amps	Amps	Amps/ $\mu$ s
D	1000	250	120	500

\* Current waveform in  $\mu$ s

\*\* Voltage waveform in  $\mu$ s

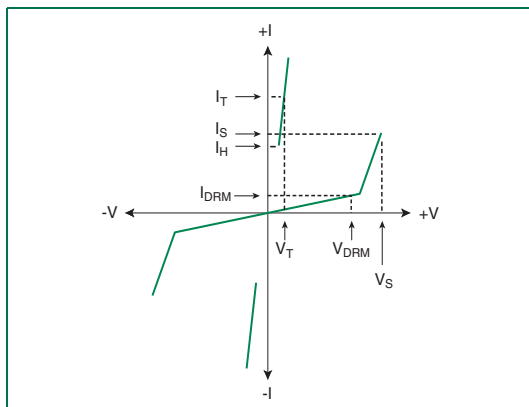
Note: P6002AD is shown. P3100AD has no center lead.

**Thermal Considerations**

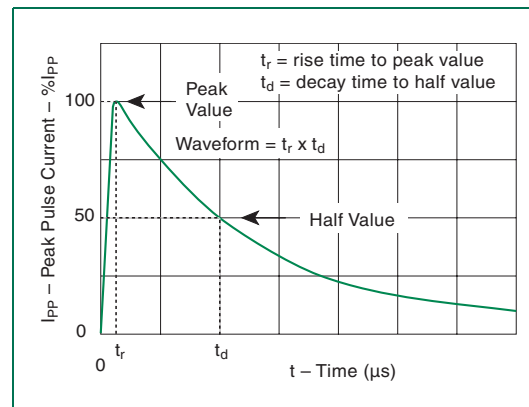
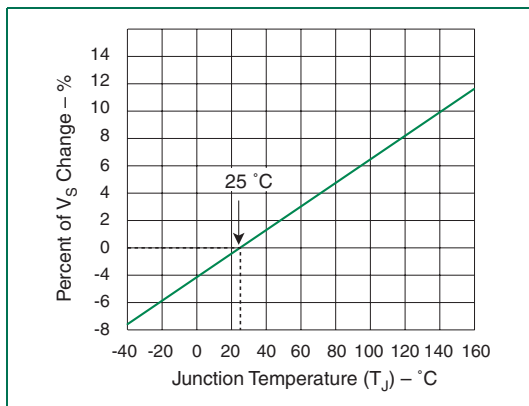
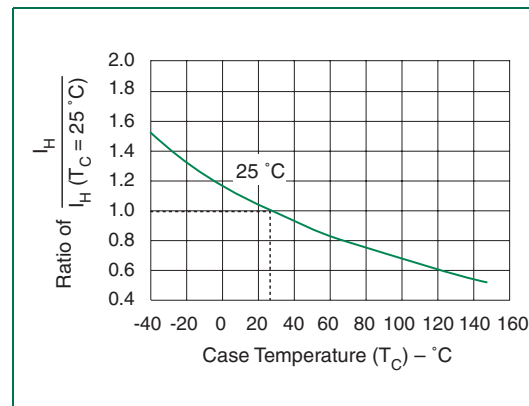
Package	Symbol	Parameter	Value	Unit
Modified TO-220 	$T_J$	Operating Junction Temperature Range	-40 to +150	°C
	$T_S$	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	60	°C/W

**Capacitance Values**

Part Number	pF	
	MIN	MAX
P6002ADL	60	200
P3100ADL	100	150

 Note: Off-state capacitance ( $C_0$ ) is measured at 1 MHz with a 2 V bias.


V-I Characteristics


 $t_r \times t_d$  Pulse Waveform

 Normalized  $V_S$  Change versus Junction Temperature


Normalized DC Holding Current versus Case Temperature