

## SIDACtor® Device



This modified TO-220 package with Type 61 lead spacing offers a through-hole technology SIDACtor protection solution.

SIDACtor devices enable equipment to comply with 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).

SIDACtor Devices

### Electrical Parameters

Part Number *	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> μAmps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps
P2000AA61L	180	220	4	5	800	2.2	150
P2200AA61L	200	240	4	5	800	2.2	150
P2400AA61L	220	260	4	5	800	2.2	150
P2500AA61L	240	290	4	5	800	2.2	150
P3000AA61L	270	330	4	5	800	2.2	150
P3300AA61L	300	360	4	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/μs.
- Special voltage (V<sub>S</sub> and V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.

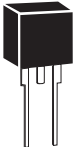
### Surge Ratings in Amps

Series	I <sub>PP</sub>									I <sub>TSM</sub> 50 / 60 Hz	di/dt Amps/μs
	0.2x310 *	2x10 *	8x20 *	10x160 *	10x560 *	5x320 *	10x360 *	10x1000 *	5x310 *		
	0.5x700 **	2x10 **	1.2x50 **	10x160 **	10x560 **	9x720 **	10x360 **	10x1000 **	10x700 **		
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps/μs
A	20	150	150	90	50	75	75	45	75	20	500

\* Current waveform in μs

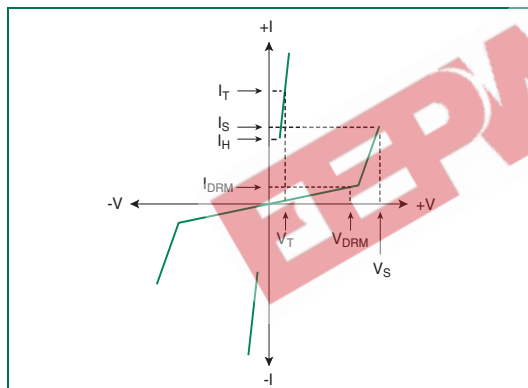
\*\* Voltage waveform in μs

**Thermal Considerations**

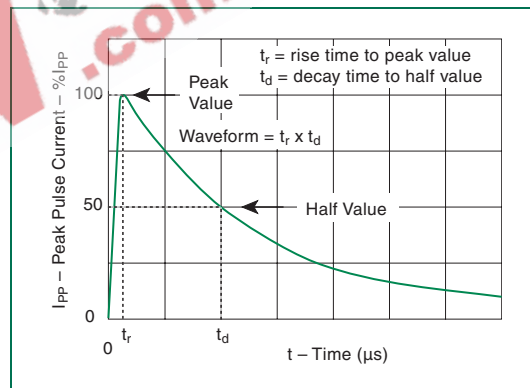
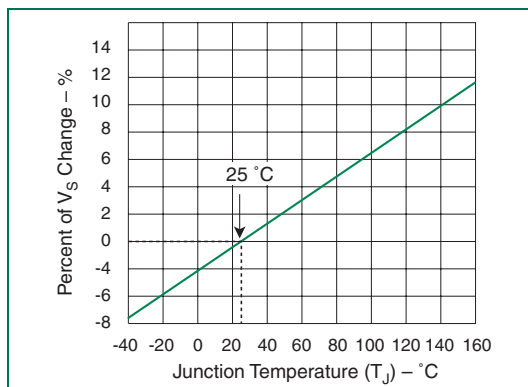
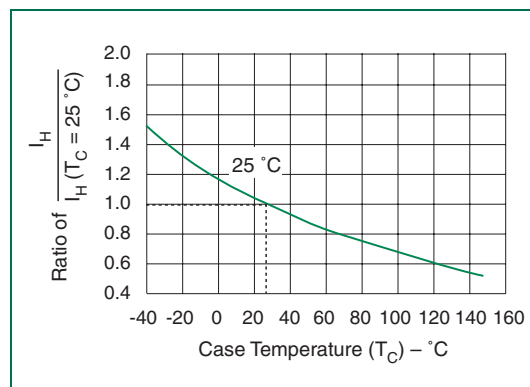
Package	Symbol	Parameter	Value	Unit
Modified TO-220 Type 61 	$T_J$	Operating Junction Temperature Range	-40 to +150	°C
	$T_S$	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	50	°C/W

**Capacitance Values**

Part Number	pF	
	MIN	MAX
P2000AA61L	25	35
P2200AA61L	25	35
P2400AA61L	25	35
P2500AA61L	20	35
P3000AA61L	20	35
P3300AA61L	20	35

 Note: Off-state capacitance ( $C_O$ ) 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