

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 _{DRM} Volts	V _S Volts	V _T Volts	I _{DRM} μAmps	I _S mAmps	I _T Amps	I _H 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_{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.

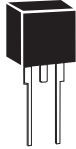
Surge Ratings in Amps

Series	I _{PP}										I _{TSM} 50 / 60 Hz	di/dt
	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

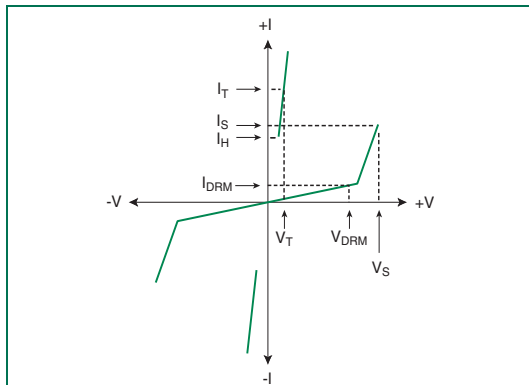
** Voltage waveform in μs

Thermal Considerations

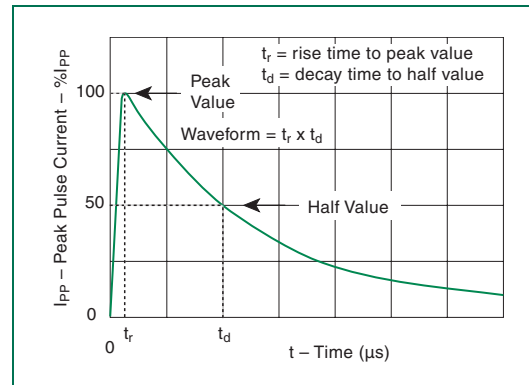
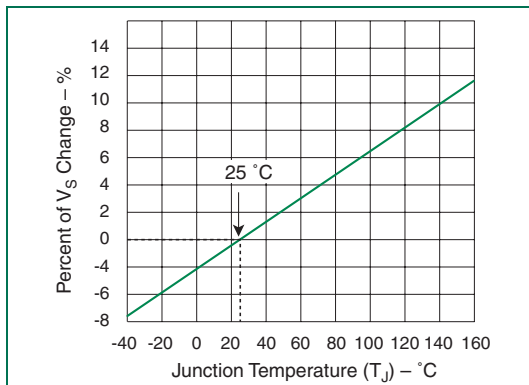
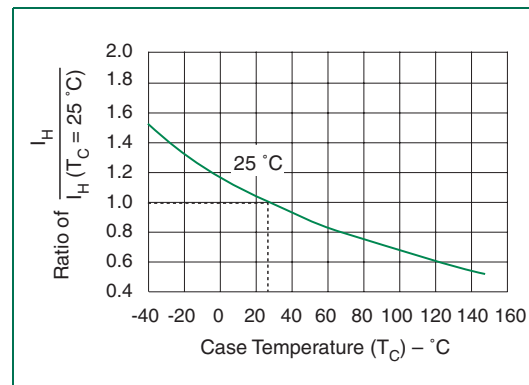
Package	Symbol	Parameter	Value	Unit
Modified TO-220 Type 61 	T_J	Operating Junction Temperature Range	-40 to +150	°C
	T_S	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	50	°C/W

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