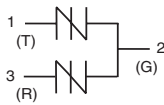


## Compak TwinCHIP™ SIDACtor® Device



The modified DO-214AA SIDACtor devices provide low-cost, longitudinal protection.

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).

### Electrical Parameters

Part Number	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	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
	Pins 1-2, 2-3		Pins 1-3						
P1402C_L	58	77	116	154	4	5	800	2.2	120
P1602C_L	65	95	130	190	4	5	800	2.2	120
P2202C_L	90	130	180	260	4	5	800	2.2	120
P2702C_L	120	160	240	320	4	5	800	2.2	120
P3002C_L	140	180	280	360	4	5	800	2.2	120
P3602C_L	170	220	340	440	4	5	800	2.2	120
P4202C_L	190	250	380	500	4	5	800	2.2	120
P4802C_L	220	300	440	600	4	5	800	2.2	120
P6002C_L	275	350	550	700	4	5	800	2.2	120

\* "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.
- UL 60950 creepage requirements must be considered.

### 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
B	25	250	250	150	100	100	125	80	100	30	500

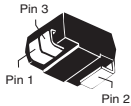
\* Current waveform in μs

\*\* Voltage waveform in μs

Note: Contact factory for release date of Series B.

SIDACtor Devices

**Thermal Considerations**

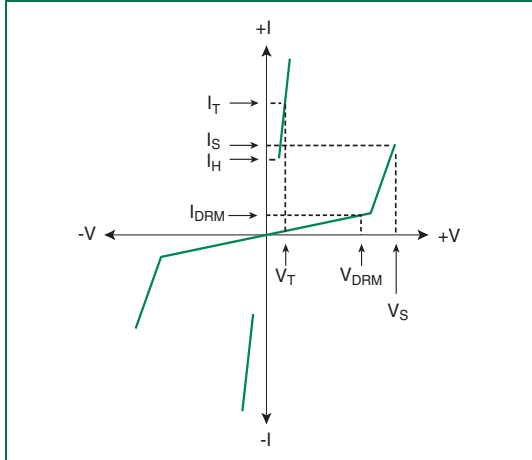
Package	Symbol	Parameter	Value	Unit
	T <sub>J</sub>	Operating Junction Temperature Range	-40 to +150	°C
	T <sub>S</sub>	Storage Temperature Range	-65 to +150	°C
	R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	85	°C/W

**Capacitance Values**

Part Number *	pF Pin 1-2 / 3-2 Tip-Ground, Ring-Ground		pF Pin 1-3 Tip-Ring	
	MIN	MAX	MIN	MAX
P1402C[A/B]L	30	55	15	35
P1602C[A/B]L	30	55	15	30
P2202C[A/B]L	25	50	15	30
P2702C[A/B]L	25	45	10	25
P3002C[A/B]L	20	40	10	25
P3602C[A/B]L	20	40	10	25
P4202C[A/B]L	20	40	10	25
P4802C[A/B]L	20	35	10	20
P6002C[A/B]L	15	35	10	20

\* [A/B] in part number indicates that values are for both A and B surge ratings.

Note: Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias.

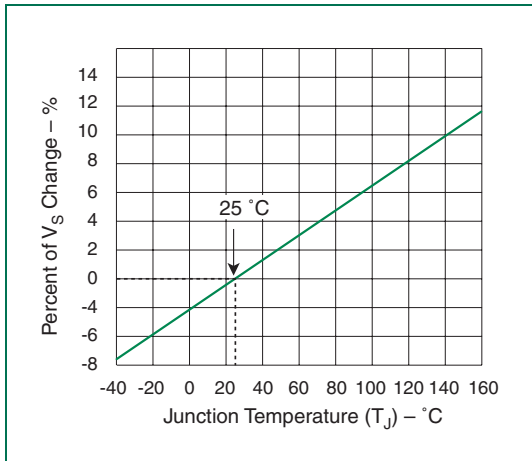


V-I Characteristics

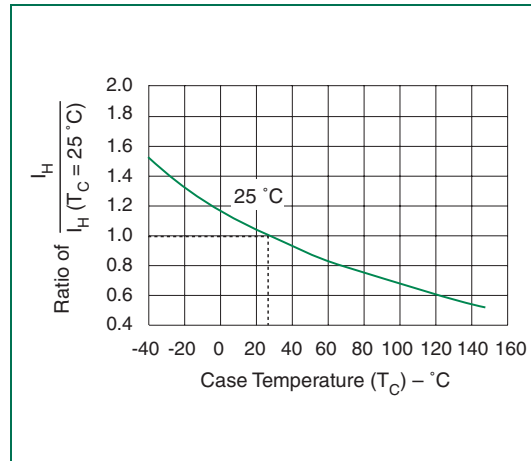


$t_r \times t_d$  Pulse Waveform

SIDACtor Devices



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature