

# LCAS Asymmetrical Discrete Device



These DO-214AA *SIDACtor*<sup>®</sup> devices are intended for LCAS (Line Circuit Access Switch) applications that require asymmetrical protection in discrete (individual) packages. They enable the protected equipment to meet various regulatory requirements including GR 1089, ITU K.20, K.21, K.45, IEG 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>T</sub> Volts	I <sub>DRM</sub> μAmps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps
P1200S_L	100	130	4	5	800	2.2	120
P2000S_L	180	220	4	5	800	2.2	120
P2500S_L	230	290	4	5	800	2.2	120

\* "L" in part number indicates RoHS compliance. For non-RoHS compliant device, delete "L" from part number.  
For individual "SA", "SB", and "SC" 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*<sup>®</sup> 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.

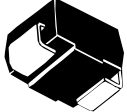
## Surge Ratings in Amps

Series	I <sub>PP</sub>									I <sub>TSM</sub> 50 / 60 Hz	di/dt
	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
C	50	500	400	200	150	200	175	100	200	50	500

\* Current waveform in μs

\*\* Voltage waveform in μs

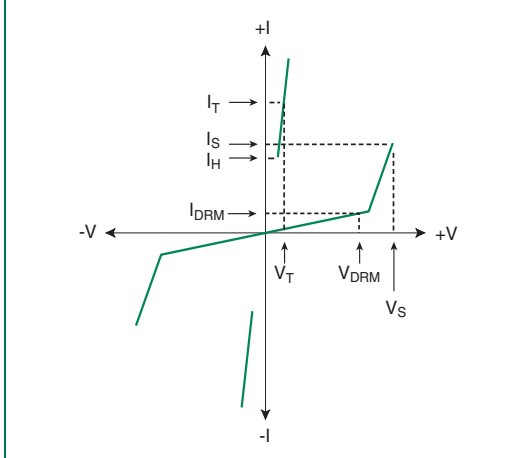
**Thermal Considerations**

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	90	°C/W

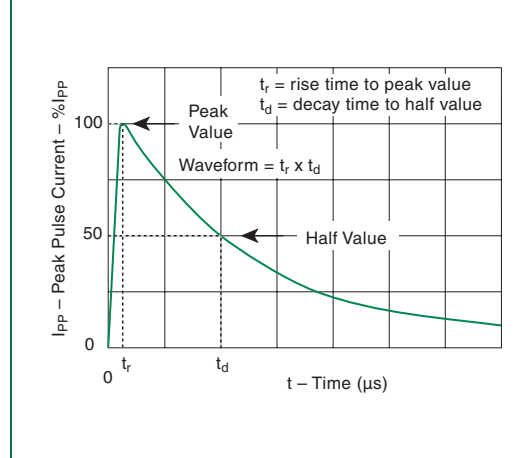
**Capacitance Values**

Part Number	pF	
	MIN	MAX
P1200SAL	30	45
P1200SBL	30	65
P1200SCL	45	110
P2000SAL	25	35
P2000SBL	25	95
P2000SCL	35	95
P2500SAL	20	35
P2500SBL	20	35
P2500SCL	30	85

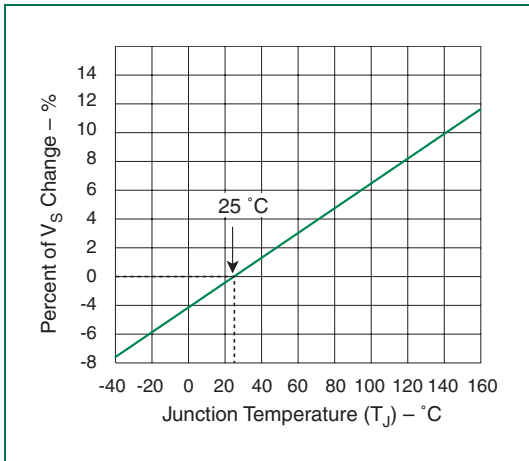
Note: Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias.



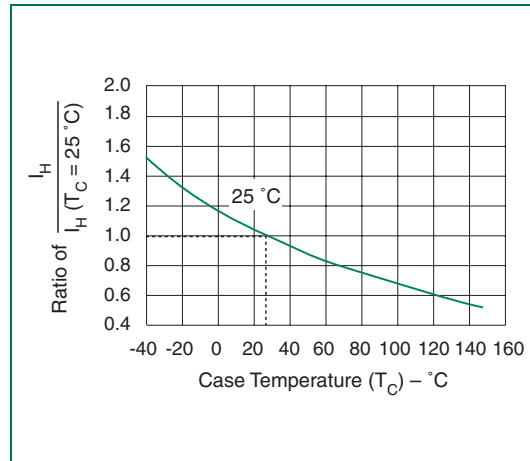
V-I Characteristics



$t_r \times t_d$  Pulse Waveform



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature