LCAS Asymmetrical Discrete Device

RoHS

Littelfuse



These DO-214AA *SIDACtor*® 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_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H 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_{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.

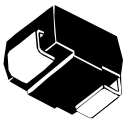
Surge Ratings in Amps

Series	I_{PP}									I_{TSM}	di/dt
	0.2x310 * 0.5x700 **	2x10 * 2x10 **	8x20 * 1.2x50 **	10x160 * 10x160 **	10x560 * 10x560 **	5x320 * 9x720 **	10x360 * 10x360 **	10x1000 * 10x1000 **	5x310 * 10x700 **	50 / 60 Hz	
	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

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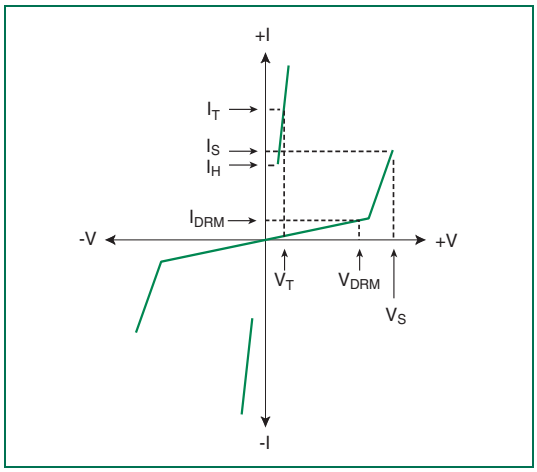
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
DO-214AA 	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	90	°C/W

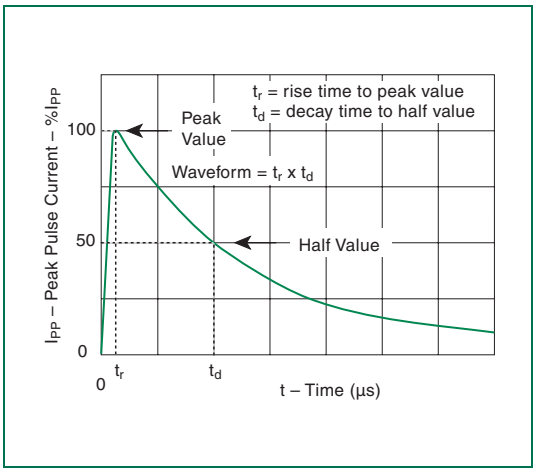
Capacitance Values

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

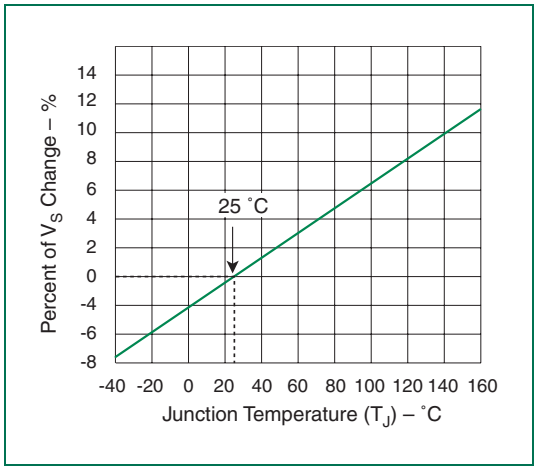
Note: Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias.



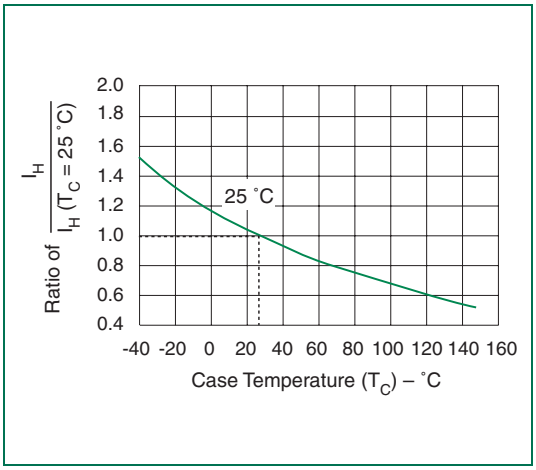
V-I Characteristics



t_r x t_d Pulse Waveform



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

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