Broadband Optimized™ *SIDACtor*® Device

RoHS

Littelfuse

The DO-214AA *SIDACtor Broadband Optimized* protection devices are intended for applications sensitive to load values. Typically, high speed connections require a lower capacitance. C_O values are 40% lower than standard devices.

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_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H mAmps
P0642S_L	58	77	4	5	800	2.2	120
P0722S_L	65	88	4	5	800	2.2	120
P0902S_L	75	98	4	5	800	2.2	120
P1102S_L	90	130	4	5	800	2.2	120
P1302S_L	120	160	4	5	800	2.2	120
P1502S_L	140	180	4	5	800	2.2	120
P1802S_L	170	220	4	5	800	2.2	120
P2302S_L	190	260	4	5	800	2.2	120
P2602S_L	220	300	4	5	800	2.2	120
P3002S_L	280	360	4	5	800	2.2	120
P3502S_L	320	400	4	5	800	2.2	120
P4202S_L	190	250	8	5	800	2.2	120
P4802S_L	440	600	4	5	800	2.2	120
P6002S_L	275	350	8	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.

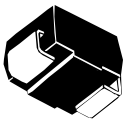
General Notes:
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and 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

* Current waveform in µs
** Voltage waveform in µs

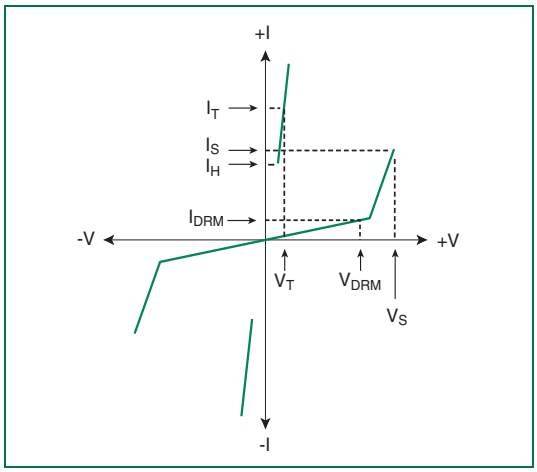
Thermal Considerations

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

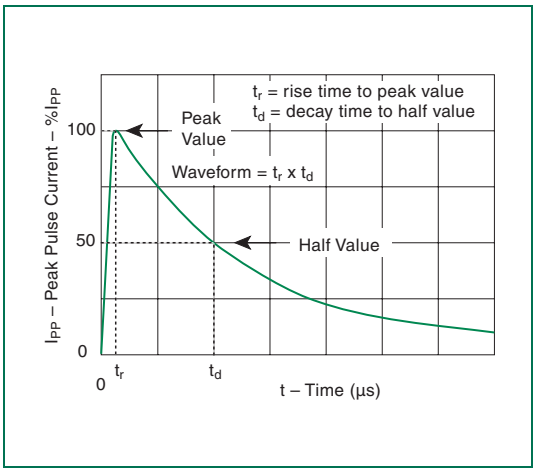
Capacitance Values

Part Number *	pF	
	MIN	MAX
P0642S[A/B]L	25	45
P0722S[A/B]L	20	45
P0902S[A/B]L	20	40
P1102S[A/B]L	15	35
P1302S[A/B]L	15	35
P1502S[A/B]L	15	30
P1802S[A/B]L	10	30
P2302S[A/B]L	10	25
P2602S[A/B]L	10	25
P3002S[A/B]L	10	25
P3502S[A/B]L	10	20
P4202S[A/B]L	10	20
P4802S[A/B]L	5	20
P6002S[A/B]L	5	20

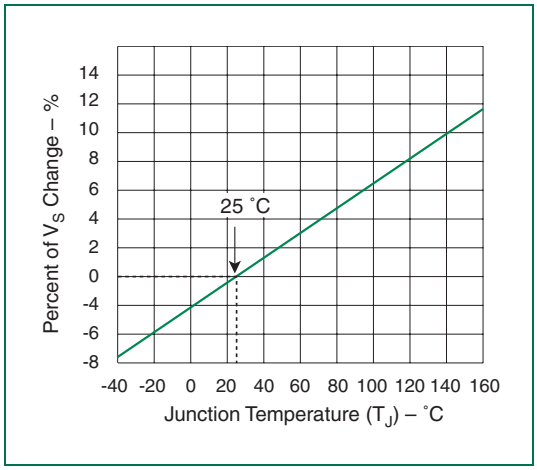
* [A/B] in part number indicates that values are for both A and B surge ratings.
Note: Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias.



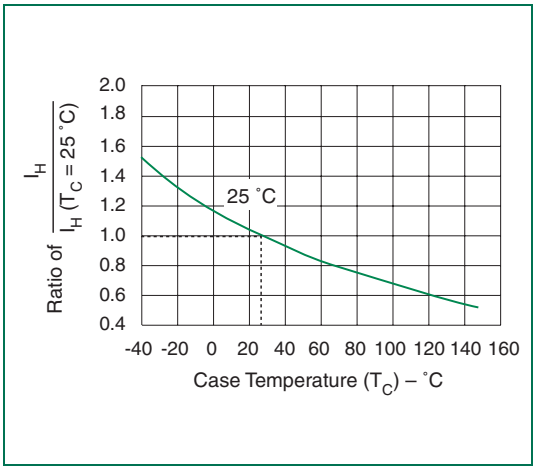
V-I Characteristics



t_r x t_d Pulse Waveform



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature