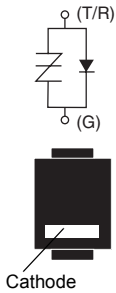


Fixed Voltage SLIC Protector



These DO-214AA unidirectional protectors are constructed with a *SIDACtor*[®] device and an integrated diode. They protect SLICs (Subscriber Line Interface Circuits) from damage during transient voltage activity and enable line cards 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).

For details of specific design criteria, see Figure 6.31 in Section 6, “Reference Designs” of this *Telecom Design Guide*.

SIDACtor Devices

Electrical Parameters

Part Number *	V _{DRM} Volts	V _S Volts	V _T Volts	V _F Volts	I _{DRM} μAmps	I _S mAmps	I _T Amps	I _H mAmps
P0641S_L	58	77	4	5	5	800	1	120
P0721S_L	65	88	4	5	5	800	1	120
P0901S_L	75	98	4	5	5	800	1	120
P1101S_L	95	130	4	5	5	800	1	120
P1301S_L	120	160	4	5	5	800	1	120
P1701S_L	160	200	4	5	5	800	1	120

* “L” in part number indicates RoHS compliance. For non-RoHS compliant device, delete “L” from part number.
For individual “SA” and “SC” surge ratings, see table below.

General Notes:

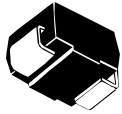
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- V_{DRM} is measured at I_{DRM}.
- V_S and V_F are measured at 100 V/μs.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.
- Parallel capacitive loads may affect electrical parameters.

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
C	50	500	400	200	150	200	175	100	200	50	500

* Current waveform in μs
** Voltage waveform in μs

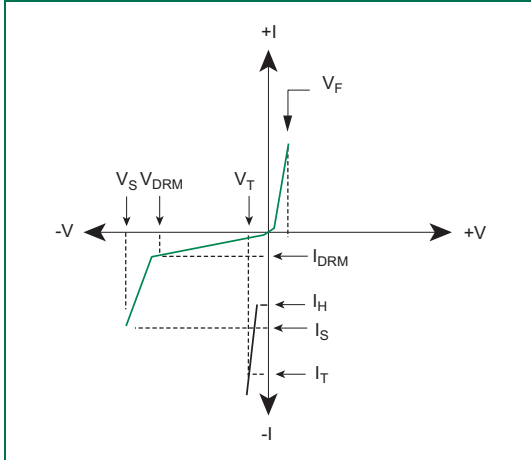
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
DO-214AA 	T _J	Operating Junction Temperature Range	-40 to +150	°C
	T _S	Storage Temperature Range	-65 to +150	°C
	R _{θJA}	Thermal Resistance: Junction to Ambient	90	°C/W

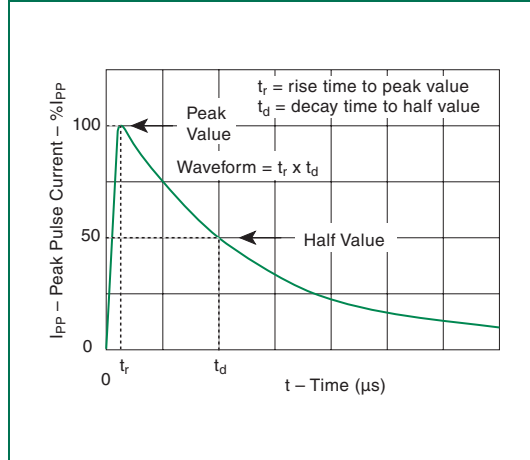
Capacitance Values

Part Number	pF	
	MIN	MAX
P0641SAL	50	90
P0641SCL	65	200
P0721SAL	45	85
P0721SCL	60	190
P0901SAL	45	80
P0901SCL	60	180
P1101SAL	40	70
P1101SCL	50	160
P1301SAL	40	70
P1301SCL	50	160
P1701SAL	30	55
P1701SCL	40	130

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

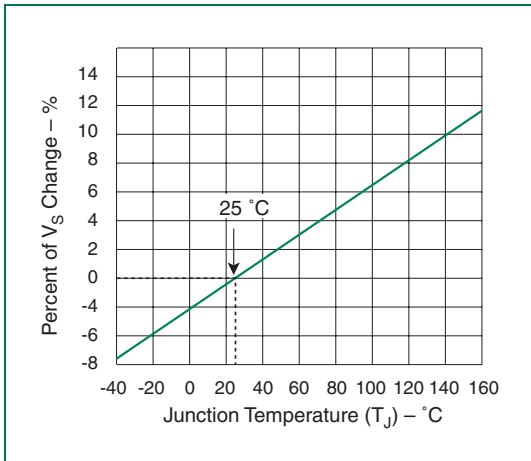


V-I Characteristics

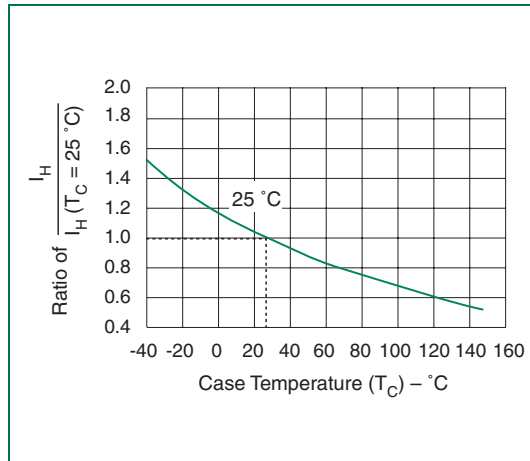


$t_r \times t_d$ Pulse Waveform

SIDACtor Devices



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature