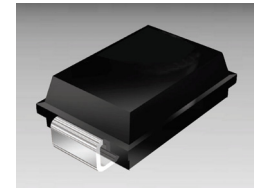


Description

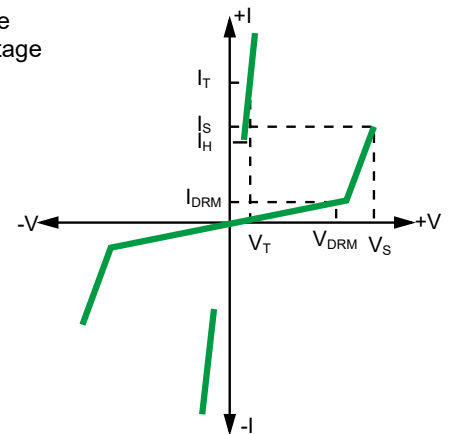
Prisemi POVxxxxSA (SMA) protects central office accesses and customer premise equipments against overvoltage on communication line. Such as CCD and DVR video line, modems, line cards, fax machines, and other CPE. The devices are used to enable equipment to meet various regulatory requirements including GR 1089, ITU K.20, K.21 and K.45, IEC 60950, UL 60950, and TIA-968 (formerly known as FCC Part 68).



Feature

Compared to surge suppression using other technologies, POVxxxxSA offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt).

- Cannot be damaged by voltage
- Eliminate hysteresis and heat dissipation typically found with clamping devices
- Eliminate voltage overshoot caused by fast-rising transients
- Are non-degenerative
- Will not fatigue
- Have low capacitance, making them ideal for high-speed transmission equipment



Electrical Parameters

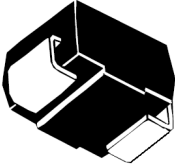
Part Number	I _{BRM} @V _{BRM}		V _S @I _S		V _T @I _T		I _H	C _o
	μA	V	V	mA	V	A	mA	pF
	Max	Min	Max	Max	Max	Max	Min	Max
POV0080SA	5	6	25	800	4	2.2	20	30
POV0150SA	5	14	20	800	4	2.2	20	40
POV0220SA	5	18	30	800	4	2.2	20	60
POV0300SA	5	25	40	800	4	2.2	50	60
POV0640SA	5	58	77	800	4	2.2	100	60
POV0720SA	5	65	88	800	4	2.2	100	50
POV0900SA	5	75	98	800	4	2.2	100	50
POV1100SA	5	90	130	800	4	2.2	100	50
POV1300SA	5	120	160	800	4	2.2	100	45
POV1500SA	5	140	180	800	4	2.2	100	45
POV1800SA	5	170	220	800	4	2.2	100	35
POV2000SA	5	180	220	800	4	2.2	100	35
POV2300SA	5	190	260	800	4	2.2	100	35
POV2600SA	5	220	300	800	4	2.2	100	35
POV3100SA	5	275	350	800	4	2.2	100	35
POV3500SA	5	320	400	800	4	2.2	100	35

Notes: ALL measurements are made at an ambient temperature of 25°C. Ipp applies to -40°C through +85°C temperature range.
V_{DRM} is measured at I_{DRM}.
V_S is measured at 100V/μs.
Off-state capacitance is measured at 1MHz with a 2V bias.

Surge Ratings

Series	I _{PP} 2x10 μs Amps	I _{PP} 8x20 μs Amps	I _{PP} 10x160 μs Amps	I _{PP} 10x560 μs Amps	I _{PP} 10x1000 μs Amps	I _{TSM} 60 Hz Amps	di/dt Amps/μs
A	150	150	90	50	45	20	500

Thermal Considerations

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

Typical Characteristics

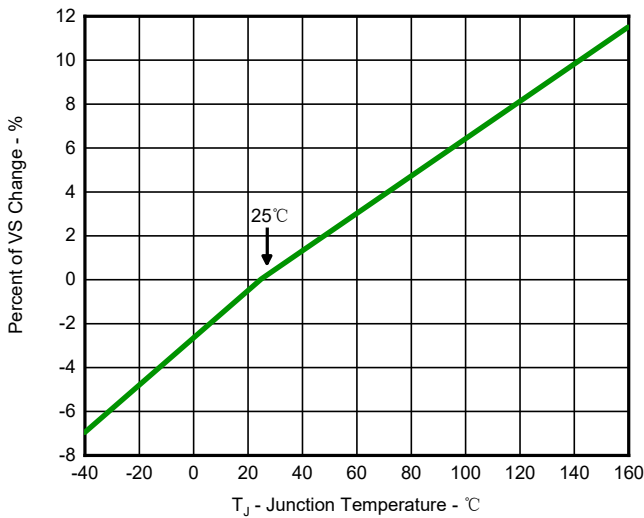


Fig 1. Normalized VS Change vs. Junction Temperature

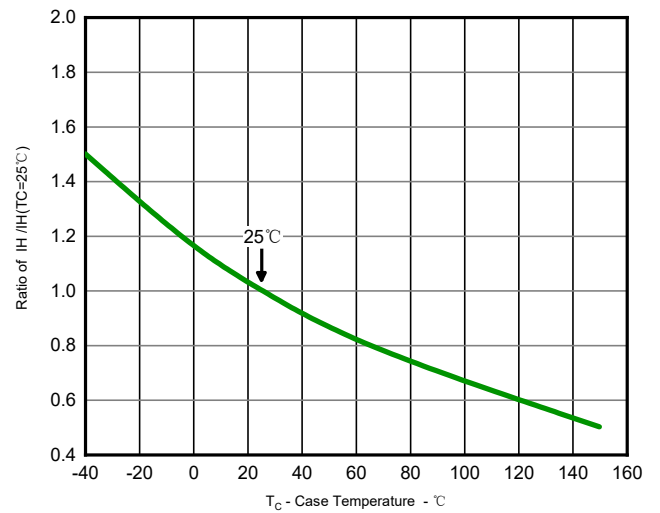


Fig 2. Normalized DC Holding Current versus Case Temperature

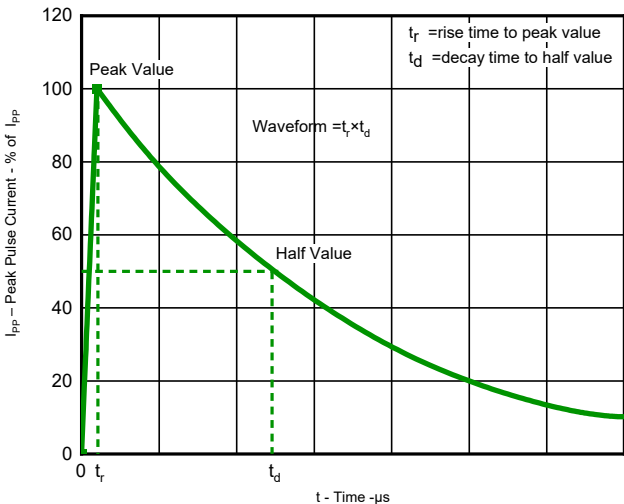
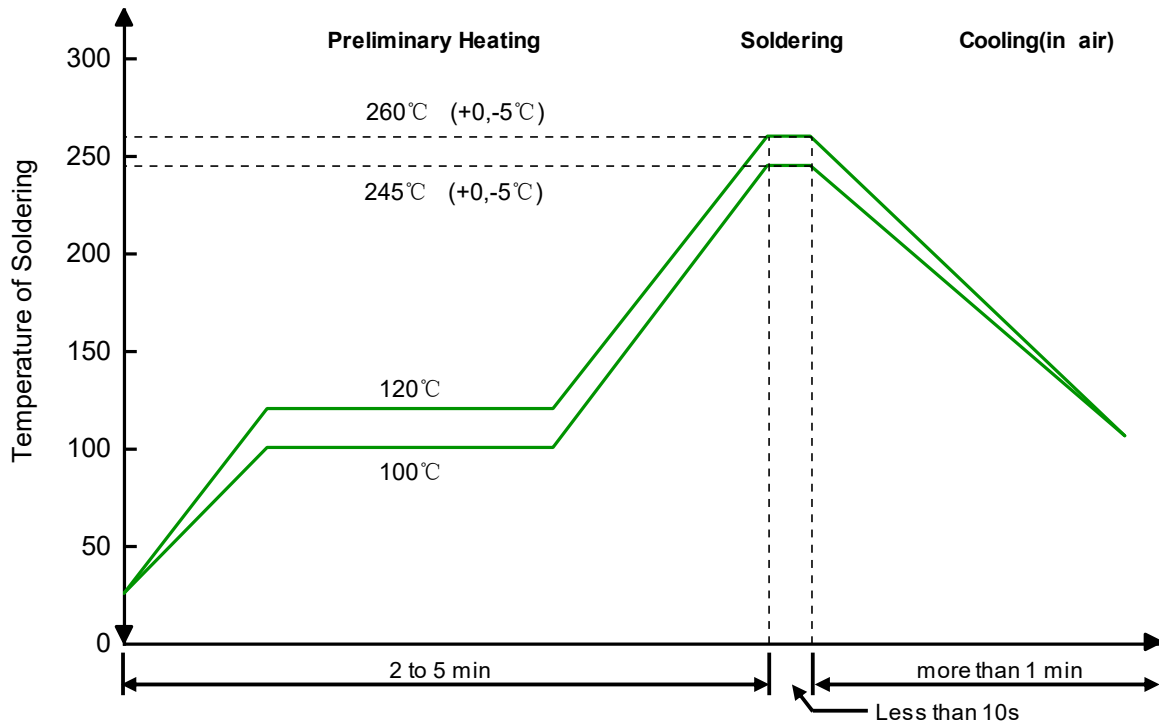


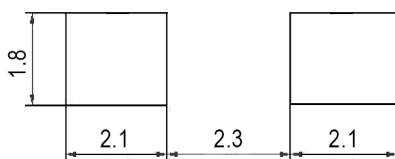
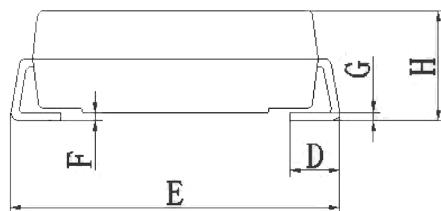
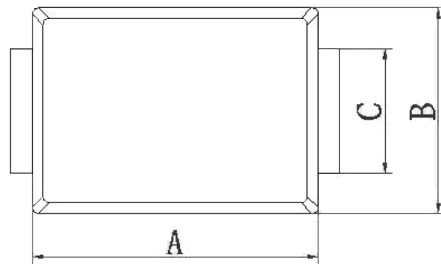
Fig 3. $t_r \times t_d$ Pulse Wave-form

Solder Reflow Recommendation



Remark: Pb free for 260°C; Pb for 245°C.

Product Dimension(SMA)



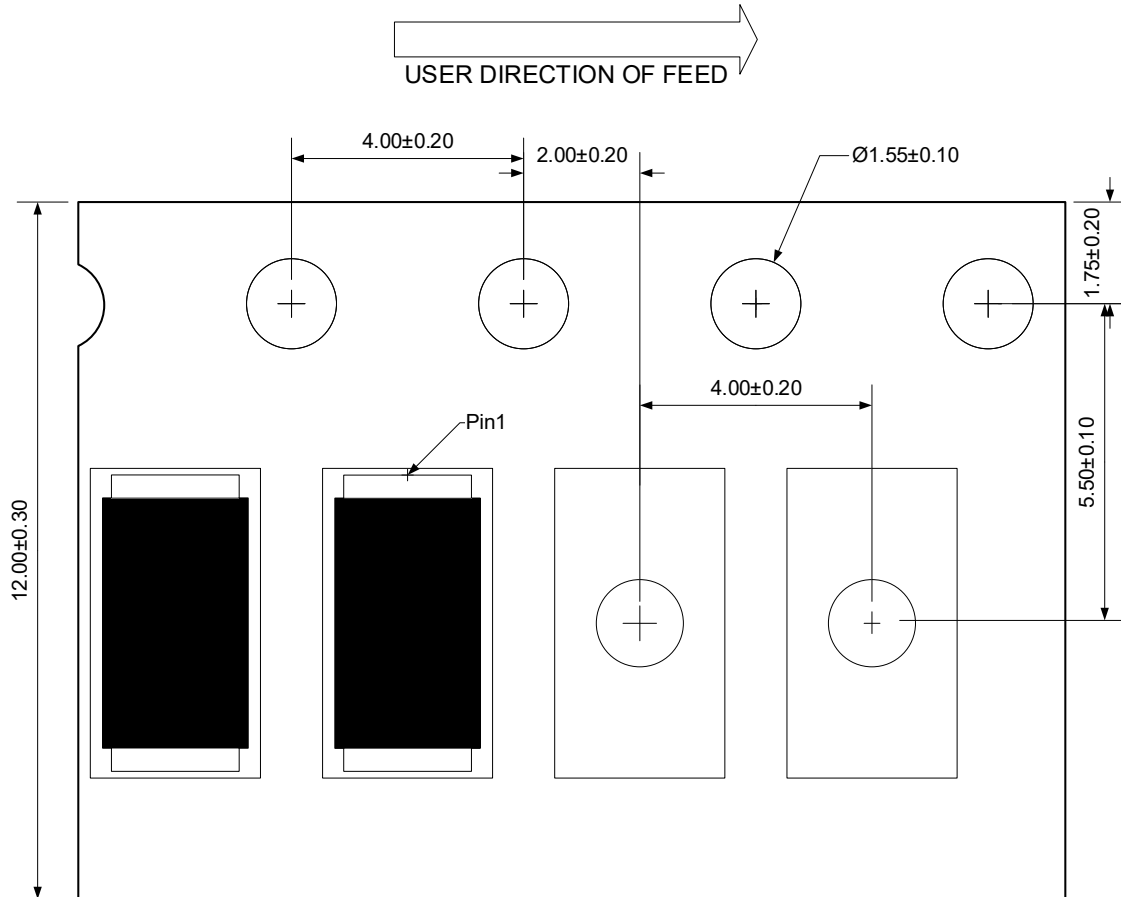
Suggested PCB Layout Unit: mm

Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	3.99	4.5	0.157	0.177
B	2.5	2.9	0.098	0.114
C	1.2	1.7	0.047	0.067
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0	0.203	0.000	0.008
G	0.15	0.25	0.006	0.010
H	1.98	2.41	0.078	0.095

Ordering information


Package	Reel	Shipping
SMA	13"	5000 / Tape & Reel

Load with information



Unit:mm


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