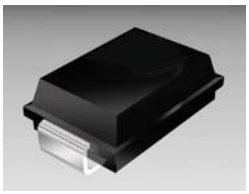
Description

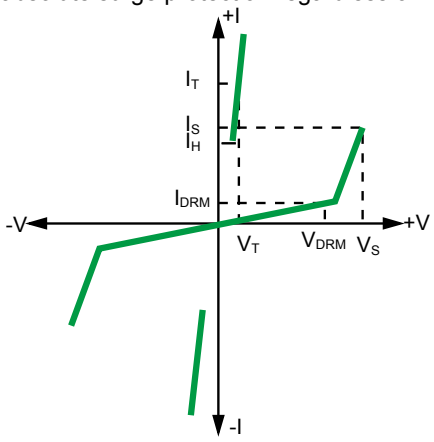
Prisemi POVxxxxSB (SMB) protects central office accesses and customer premise equipments against overvoltage on communication line. Such as CCD and DVR vedio line, modems, line cards, fax machines, and other CPE. The devices are used to enable equipment to meet various regulatory requirements including 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, POVxxxxSB devices 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	V_{DRM} (V)	V_S (V)	V_T (V)	I_{DRM} (μA)	I_S (mA)	I_T (A)	I_H (mA)	C (pF)
POV0080SB	6	25	4	5	800	2.2	80	80
POV0300SB	25	40	4	5	800	2.2	80	80
POV0640SB	58	77	4	5	800	2.2	150	80
POV0720SB	65	88	4	5	800	2.2	150	70
POV0900SB	75	98	4	5	800	2.2	150	70
POV1100SB	90	130	4	5	800	2.2	150	70
POV1300SB	120	160	4	5	800	2.2	150	70
POV1500SB	140	180	4	5	800	2.2	150	65
POV1800SB	170	220	4	5	800	2.2	150	65
POV1826SB	180	260	4	5	800	2.2	150	55
POV2300SB	190	260	4	5	800	2.2	150	60
POV2600SB	220	300	4	5	800	2.2	150	60
POV3100SB	275	350	4	5	800	2.2	150	55
POV3500SB	320	400	4	5	800	2.2	150	55
POV4200SB	390	500	4	5	800	2.2	150	25

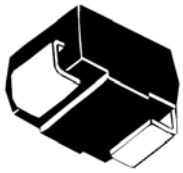
Notes: ALL measurements are made at an ambient temperature of 25℃.Ipp applies to -40℃ through +85℃ temperature range.

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
B	250	250	150	100	80	30	500

Thermal Considerations

Package SMB	Symbol	Parameter	Value	Unit
	T_J	Operating Junction Temperature	- 40 to +150	°C
	T_S	Storage Temperature Range	- 65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W

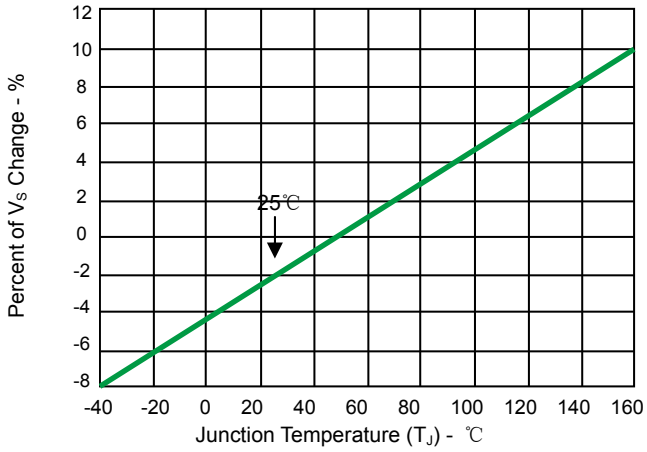


Fig 1.Normalized V_S Change vs. Junction Temperature

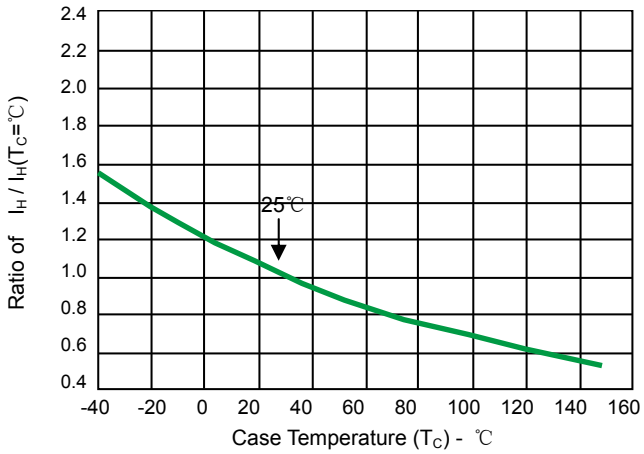


Fig 2. Normalized DC Holding Current versus Case Temperature

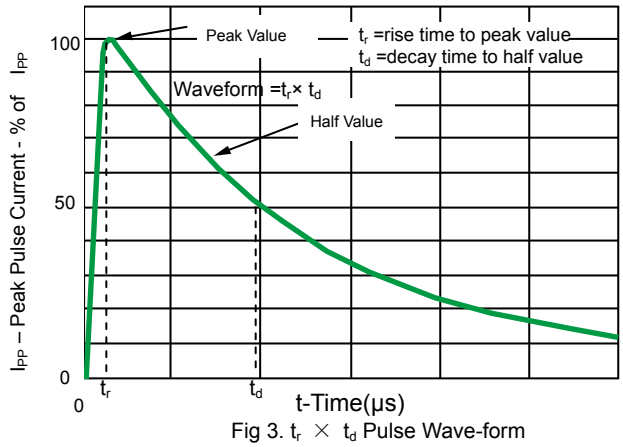
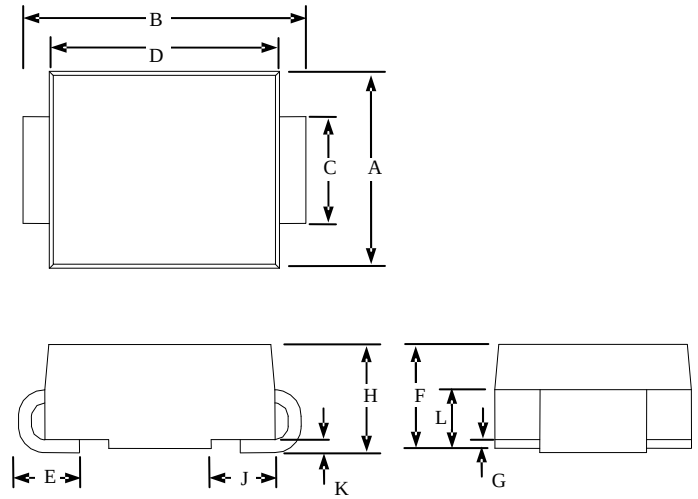


Fig 3. t_r × t_d Pulse Wave-form

Product dimension(SMB)



DIMENSIONS ARE : INCHES / (Millimeters)

Dimension	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.134	0.155	3.40	3.94
B	0.205	0.220	5.21	5.59
C	0.075	0.083	1.90	2.11
D	0.166	0.185	4.22	4.70
E	0.036	0.056	0.91	1.42
F	0.073	0.087	1.85	2.10
G	0.002	0.008	0.05	0.20
H	0.077	0.094	1.95	2.40
J	0.043	0.053	1.09	1.35
K	0.008	0.014	0.20	0.35
L	0.039	0.049	0.99	1.24

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