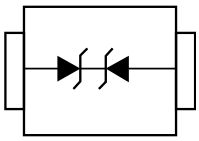
Description

Prisemi's PELB5VBC protects central office access and customer premise equipment against ESD and lightning on the telecom line and others.

DO-214AA solid state protection devices protect telecommunications equipment such as modems, line cards, fax machines, and other CPE.

The device is used to enable equipment to meet various regulatory requirements including IEC61000-4-2, IEC62000-4-5, 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, PELB5VBC offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). PELB5VBC:

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

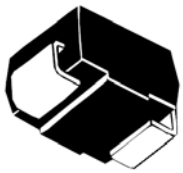
Electrical Parameters

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_t = 1mA	6.2			V
Reverse Leakage Current	I_R	V_{RWM} = 5V T=25℃			1	μA
Junction Capacitance	C_j	V_R=2V f = 1MHz		125		pF
Hold Current	I_H			50		mA

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} 10x700 μs Amps	I_{PP} 10x1000 μs Amps	I_{TSM} 60 Hz Amps	di/dt Amps/μs
C	500	400	250	150	200	100	30	500

Thermal Considerations

Package DO-214AA	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

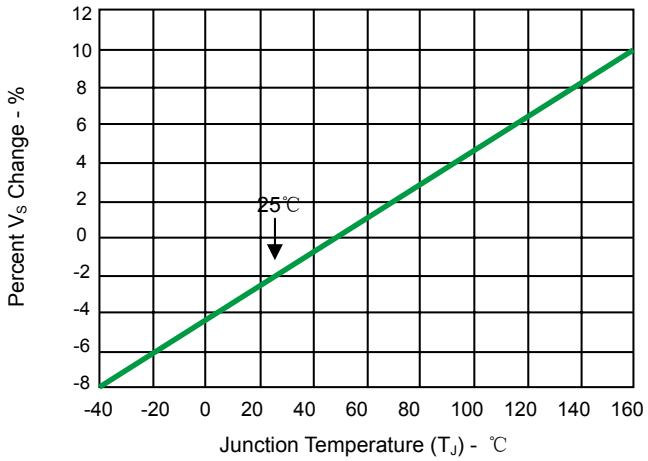


Fig 1.Normalized V_S Change vs. Junction Temperature

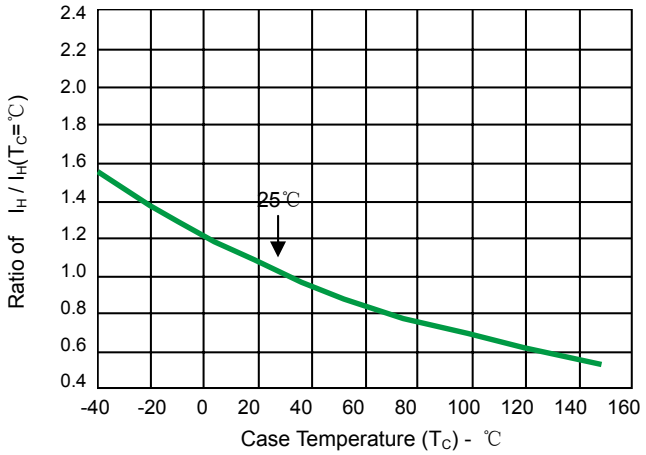


Fig 2. Normalized DC Holding Current versus Case Temperature

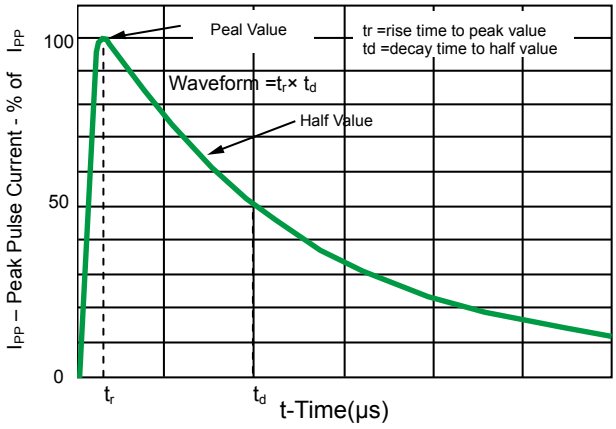
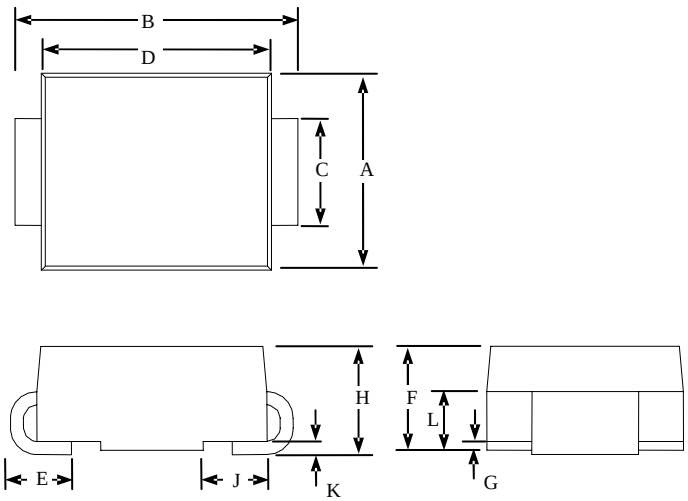
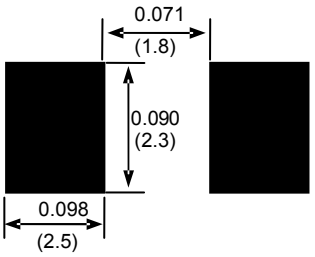


Fig 3. t_r × t_d Pulse Wave-form

Product dimension(DO-214AA/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

Ordering information

Device	Package	Shipping
PELB5VBC	SMB(Pb-Free)	3000 / Tape & Reel

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