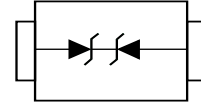


### Description

Prisemi's PELB5VB003MC 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.

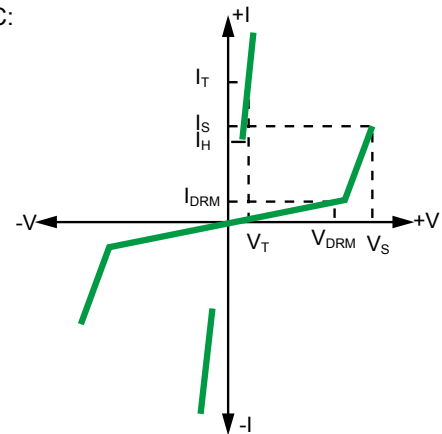
The device is used to enable equipment to meet various regulatory requirements including IEC61000-4-2, IEC62000-4-5, GR 1089, ITU K.20, K.21 and K.45, IEC 60950, UL 60950, and TIA-968 (formerly known as FCC Part 68).



### Feature

Compared to surge suppression using other technologies, PELB5VB003MC offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). PELB5VB003MC:

- 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



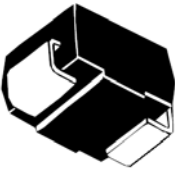
### Electrical Parameters

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	$I_R$	$V_{RWM} = 5V$ $T=25^{\circ}C$			1	$\mu A$
Junction Capacitance	$C_j$	$V_R=2V$ $f = 1MHz$		25		pF
Hold Current	$I_H$				30	mA

### Surge Ratings

Series	$I_{PP}$ 2x10 $\mu s$ Amps	$I_{PP}$ 8x20 $\mu s$ Amps	$I_{PP}$ 10x160 $\mu s$ Amps	$I_{PP}$ 10x560 $\mu s$ Amps	$I_{PP}$ 10x700 $\mu s$ Amps	$I_{PP}$ 10x1000 $\mu s$ Amps	$I_{TSM}$ 60 Hz Amps	di/dt Amps/ $\mu s$
B	500	400	250	150	150	100	30	500

Thermal Considerations

Package DO-214AA	Symbol	Parameter	Value	Unit
	$T_J$	Operating Junction Temperature	- 40 to +150	$^{\circ}\text{C}$
	$T_S$	Storage Temperature Range	- 65 to +150	$^{\circ}\text{C}$
	$R_{BJA}$	Thermal Resistance: Junction to Ambient	90	$^{\circ}\text{C/W}$

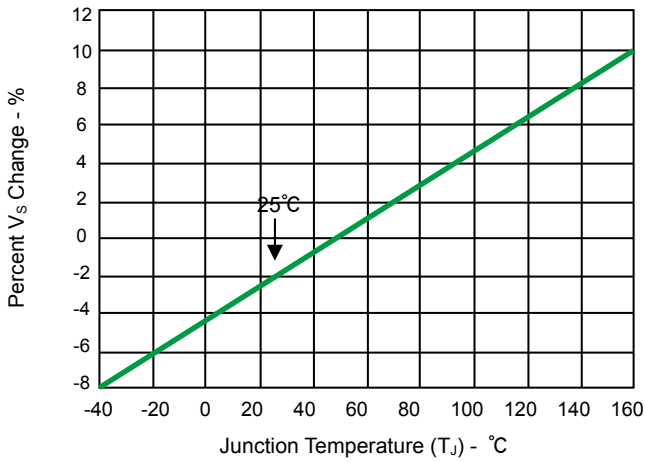


Fig 1. Normalized  $V_S$  Change vs. Junction Temperature

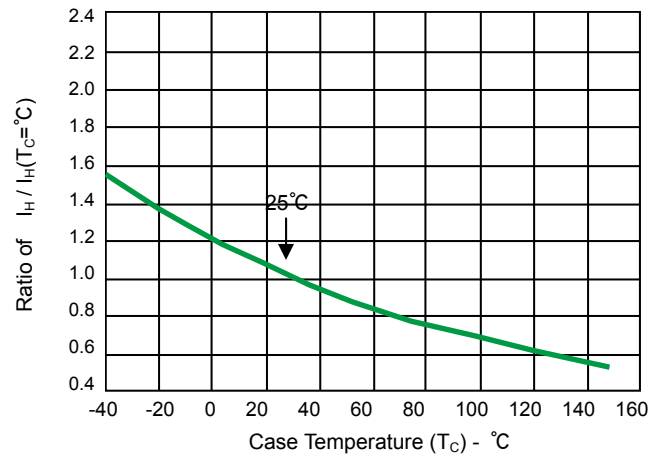


Fig 2. Normalized DC Holding Current versus Case Temperature

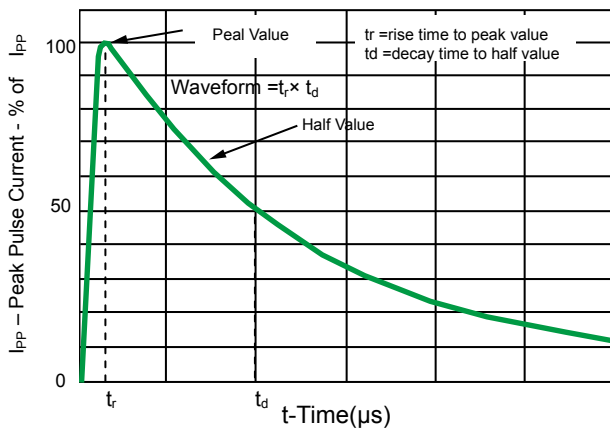
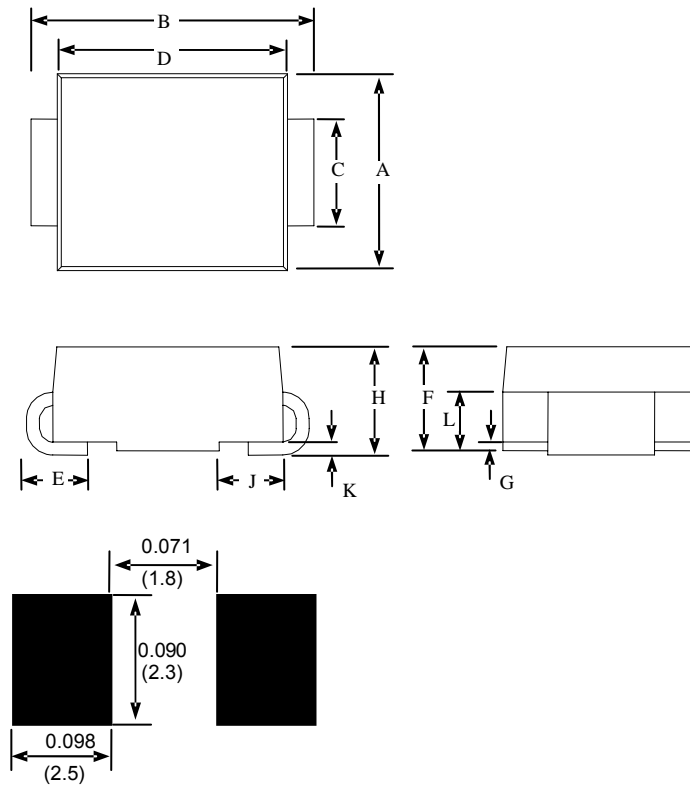


Fig 3.  $t_r \times t_d$  Pulse Wave-form

Product dimension(DO-214AA/SMB)




DIMENSIONS ARE :  $\frac{\text{INCHES}}{\text{(Millimeters)}}$

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
PELB5VB003MC	SMB(Pb-Free)	3000 / Tape & Reel


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