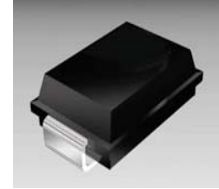


Description

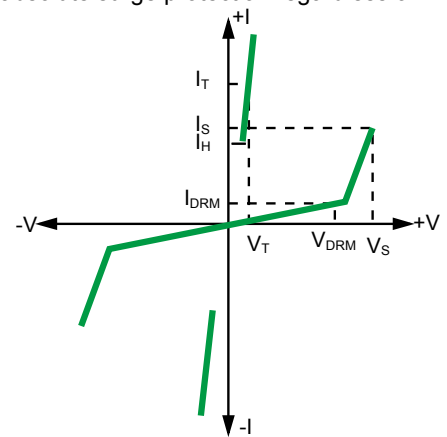
Prisemi PELA5VB1 (DO-214AC/SMA) protects central office accesses and customer premise equipments against overvoltage on communication line. Such as CCD and DVR video line, modems, line cards, fax machines, and other CPE. The devices are used to enable equipment to meet various regulatory requirements 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, PELA5VB1 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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_t = 1\text{mA}$	6.2			V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$ $T=25^\circ\text{C}$			1	μA
Junction Capacitance	C_j	$V_R=2\text{V}$ $f = 1\text{MHz}$		55		pF
Hold Current	I_H			30	50	mA
ESD Level		Contact discharge:8kV Air discharge:15kV				

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
A	250	250	150	100	100	80	20

Thermal Considerations

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

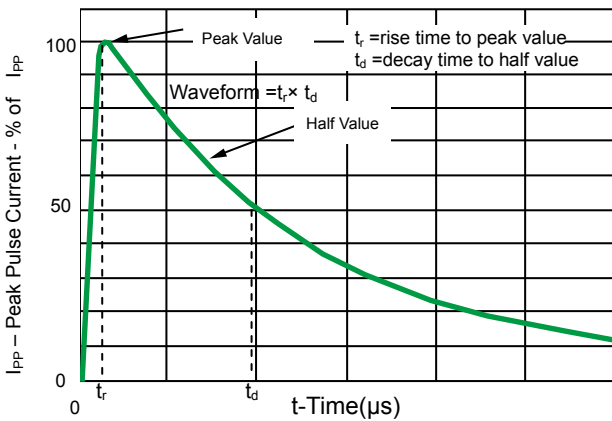


Fig 1. $t_r \times t_d$ Pulse Wave-form

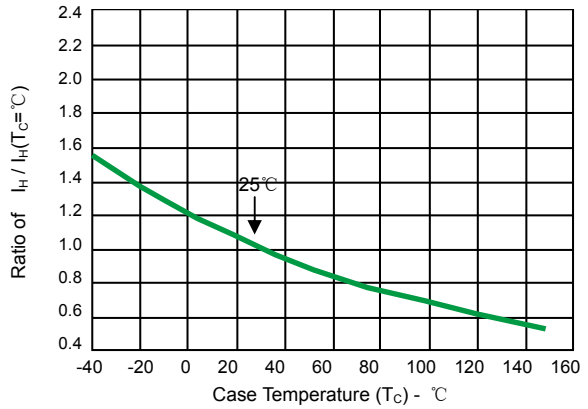
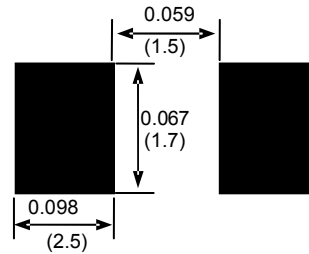
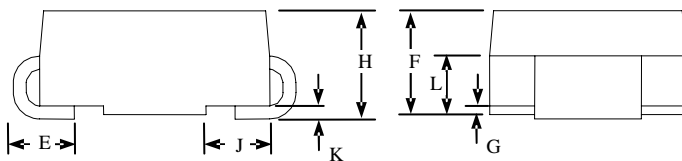
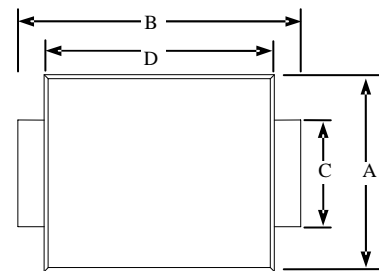


Fig 2. Normalized DC Holding Current versus Case Temperature

Product dimension(DO-214AC/SMA)




INCHES
(Millimeters)

Dimension	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.08	0.11	2.1	2.7
B	0.18	0.20	4.7	5.3
C	0.05	0.06	1.2	1.7
D	0.16	0.18	4.0	4.5
E	0.03	0.05	0.9	1.4
F	0.06	0.08	1.7	2.2
G	0.00	0.00	0.0	0.2
H	0.06	0.09	1.7	2.3
J	0.03	0.05	0.8	1.3
K	0.00	0.01	0.2	0.3
L	0.03	0.04	0.9	1.2

Ordering information

Device	Package	Shipping
PELA5VB1	DO-214AC/SMA (Pb-Free)	5000 / Tape & Reel


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