

### Description

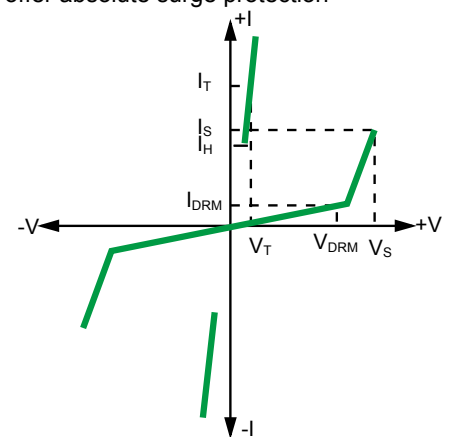
Prisemi PELA5VB003LC (DO-214AC/SMA) protects central office accesses and customer premise equipments against overvoltage on communication line. Such as CCD and DVR video line, modems, line cards, fax machines, and other CPE. The devices are used to enable equipment to meet various regulatory requirements 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, PELA5VB003LC 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	$V_{DRM}$				5	V
Reverse Breakdown Voltage	$V_S$	$I_t = 1\text{mA}$	6.2			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$ $T=25^\circ\text{C}$			1	$\mu\text{A}$
Junction Capacitance	$C_j$	$V_R=2\text{V}$ $f = 1\text{MHz}$		15		pF
Hold Current	$I_H$			15	30	mA
ESD Level		Contact discharge:30kV Air discharge:30kV				

### Surge Ratings

Series	$I_{PP}$ 2x10 $\mu\text{s}$ Amps	$I_{PP}$ 8x20 $\mu\text{s}$ Amps	$I_{PP}$ 10x160 $\mu\text{s}$ Amps	$I_{PP}$ 10x560 $\mu\text{s}$ Amps	$V_{PP}$ 10x700 $\mu\text{s}$ Volts	di/dt Amps/ $\mu\text{s}$
A	150	150	90	87.5	3500	500

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

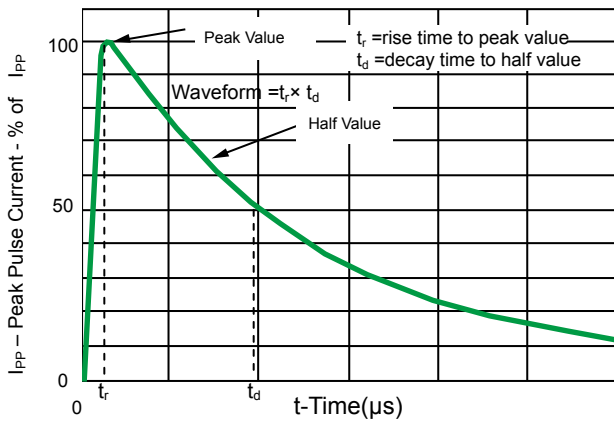
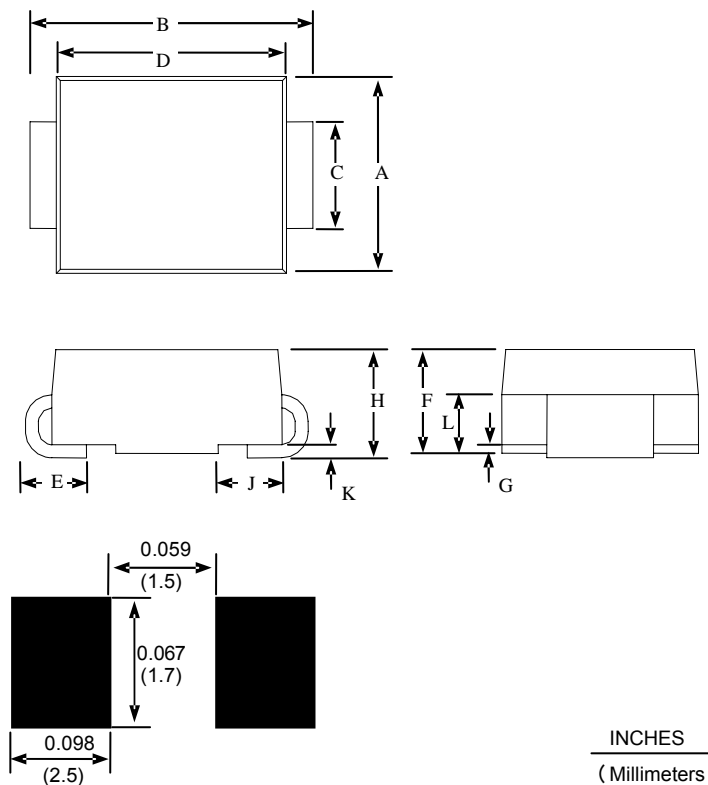


Fig 1.  $t_r \times t_d$  Pulse Wave-form

Product dimension(DO-214AC/SMA)




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
PELA5VB003LC	DO-214AC/SMA (Pb-Free)	3000 / Tape & Reel


**IMPORTANT NOTICE**

 and **Prisemi**<sup>®</sup> are registered trademarks of **Prisemi Electronics Co., Ltd (Prisemi)** ,Prisemi reserves the right to make changes without further notice to any products herein. Prisemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Prisemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. “Typical” parameters which may be provided in Prisemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts. Prisemi does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices, Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Website: <http://www.prisemi.com>

For additional information, please contact your local Sales Representative.

©Copyright 2009, Prisemi Electronics

 **Prisemi**<sup>®</sup> is a registered trademark of Prisemi Electronics.

All rights are reserved.