

### Features

- Fails short circuit when surged in excess of ratings
- Low voltage overshoot
- High repetitive surge current capability
- Low on - state voltage
- P0080SA~P3500SA are also available in SMA package



**DO-214AA  
(SMB)**

### Main Applications

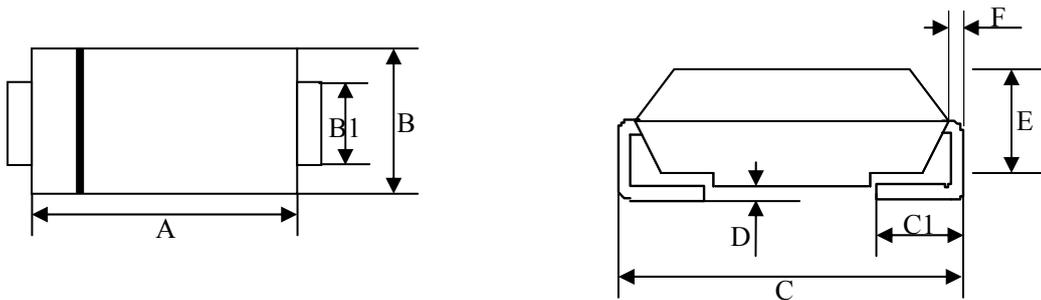
- Customer Premises Equipment (CPE)
- Modems, Line cards, DSL, ISDN, T - 1/E - 1
- Data lines and security systems
- Fax machines, Telephones etc.

### Thermal Considerations

Type Number	Symbol	Value	Units
Operating Junction Storage Temperature Range	$T_{J, TG}$	-40 to + 150	°C
Storage Temperature Range	$T_S$	-65 to + 150	°C
Thermal Resistance: Junction to Ambient	$R_{\theta JA}$	90	°C/W

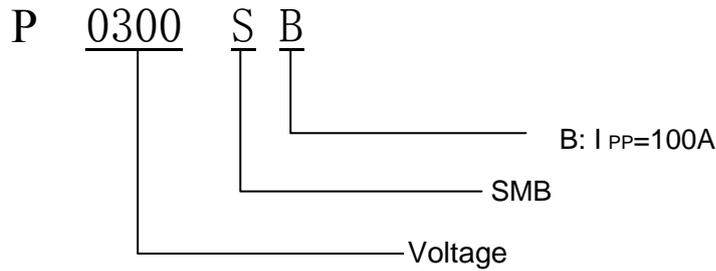
### Package Dimensions

**DO-214AA/SMB**



Dim		A	B	B1	C	C1	D	E	F
Millimeters (mm)	Min	4.06	3.30	1.95	5.21	0.76	-	2.13	0.152
	Max	4.57	3.94	2.20	5.59	1.52	0.203	2.44	0.305
Inches (inch)	Min	0.16	0.13	0.077	0.205	0.03	-	0.084	0.006
	Max	0.18	0.155	0.086	0.22	0.06	0.008	0.096	0.012

### Ordering Information



### Electrical Characteristics *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Part Number	V <sub>DRM</sub>	V <sub>S</sub>	I <sub>H</sub>	I <sub>S</sub>	I <sub>T</sub>	V <sub>T</sub>	C <sub>O</sub>	
	V min	V max	mA min	mA max	A max	V max	pF min	pF max
P0300SB	25	40	50	800	2.2	4	15	140

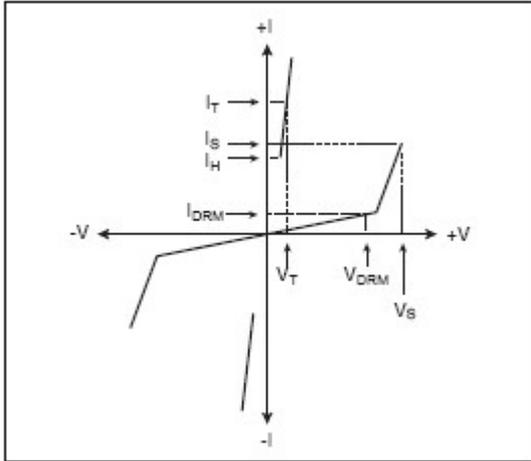
### Surge Ratings

Series	I <sub>PP</sub> 2x10μS Amps	I <sub>PP</sub> 8x20μS Amps	I <sub>PP</sub> 10x160μS Amps	I <sub>PP</sub> 10x560μS Amps	I <sub>PP</sub> 10x1000μS Amps	I <sub>TSM</sub> 50/60Hz Amps	di/dt Amps/μS
B	250	250	150	100	75	25	500

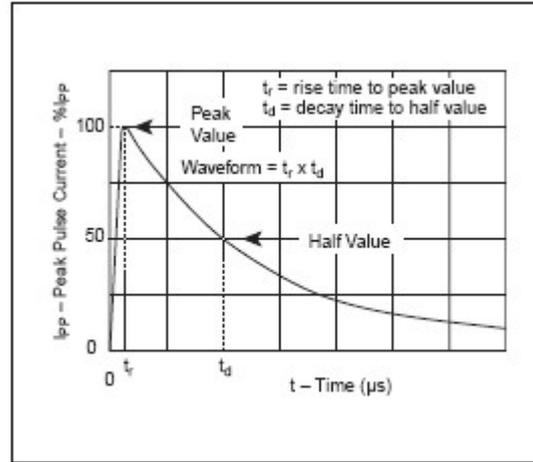
- Note: 1. Peak pulse current rating (I<sub>PP</sub>) is non - repetitive and guaranteed for the life of the product.  
 2. I<sub>PP</sub> ratings applicable over temperature range of - 40°C to +85°C  
 3. The device must initially be in thermal equilibrium with - 40°C < T<sub>J</sub> < +150°C  
 4. Current waveform and voltage waveform in μS.

## Typical Characteristics Curves

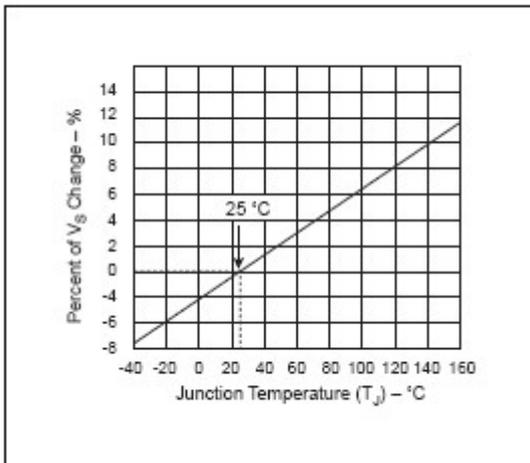
**Fig 1. V-I Characteristics**



**Fig 2.  $t_r \times t_d$  Pulse Wave-form**



**Fig 3. Normalized  $V_S$  Change versus Junction Temperature**



**Fig 4. Normalized DC Holding Current Versus Case Temperature**

