

Features

- Fails short circuit when surged in excess of ratings
- Low voltage overshoot
- High repetitive surge current capability
- Low on - state voltage



DO-214AA
(SMB)

Main Applications

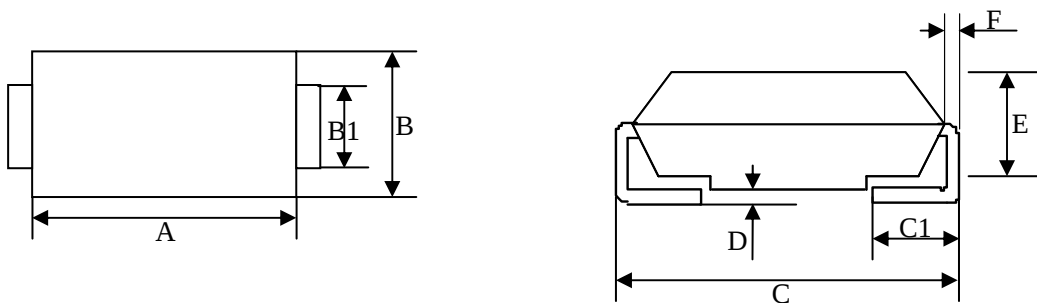
- Customer Premises Equipment (CPE)
- Modems, Line cards, DSL, ISDN, T - 1/E - 1
- Data lines and security systems
- Fax machines, Telephones etc.

Thermal Ratings

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

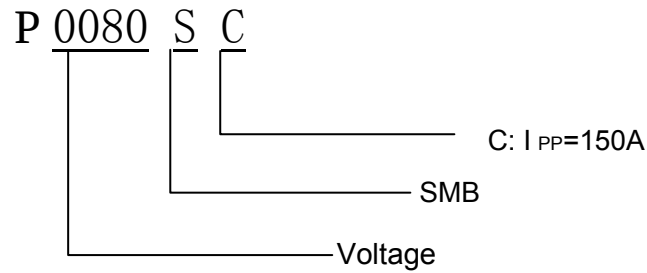
Package Dimensions

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 ($T_A=25^{\circ}\text{C}$ unless noted otherwise)

Part Number	V _{DRM}	V _S	I _H	I _S	I _T	V _T	C _o	
	V min	V max	mA min	mA max	A max	V max	pF min	pF max
P0080SC	6	25	50	800	2.2	4	45	100

Note: 1. V_{DRM}@I_{DRM}=5μA, V_S@100V/μs, V_T@I_T=2.2A, C_o@1MHz,2V

Surge Ratings

Series	I _{PP} 2x10μs Amps	I _{PP} 8x20μs Amps	I _{PP} 10x160μs Amps	I _{PP} 10x560μs Amps	I _{PP} 10x1000μs Amps	I _{TSM} 50/60Hz Amps	di/dt A/μs
A	150	150	90	50	50	20	500
B	250	250	150	100	75	25	500
C	500	400	200	150	100	30	500

Note: 1. Peak pulse current rating (I_{PP}) is non - repetitive and guaranteed for the life of the product.

2. I_{PP} ratings applicable over temperature range of - 40°C to +85°C

3. The device must initially be in thermal equilibrium with - 40°C < T_J < +150°C

4. Current waveform and voltage waveform in μs.

Typical Characteristics Curves

Fig 1. V-I Characteristics

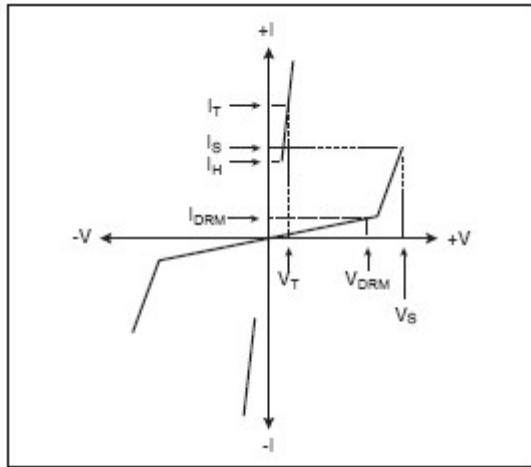


Fig 2. $t_r \times t_d$ Pulse Wave-form

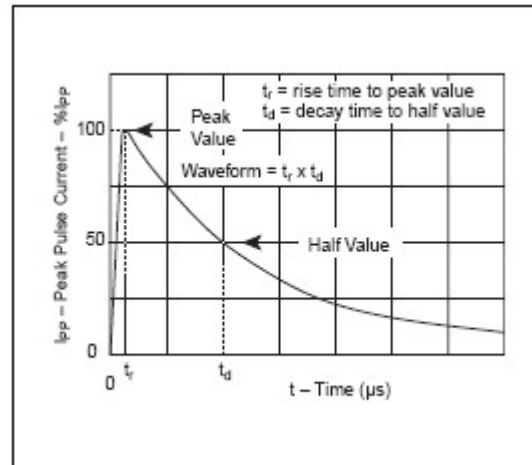


Fig 3. Normalized V_S Change versus Junction Temperature

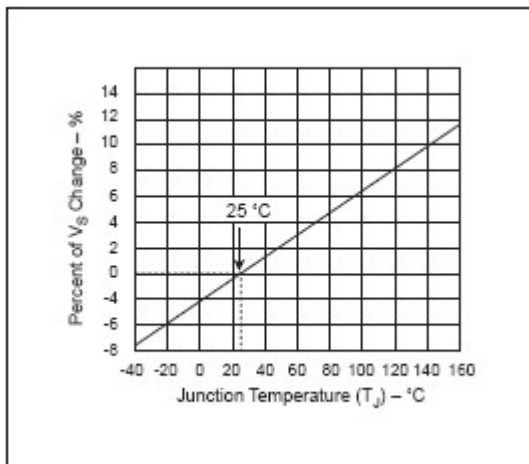


Fig 4. Normalized DC Holding Current Versus Case Temperature

