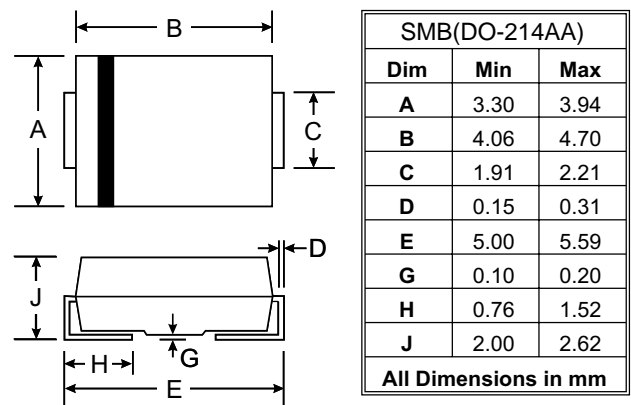


### Features

- Low voltage overshoot
- Low on-state voltage
- Does not degrade surge capability after multiple surge events within limit
- Fails short circuit when surged in excess of ratings
- Low Capacitance

### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated Terminal -
- Solderable per MIL-STD-202, Method 208
- Polarity: None; Bi-Directional Devices Have No Polarity Indicator
- Weight: 0.093 grams (approx.)



### Surge Ratings

Series	2/10 S <sup>1</sup>	8/20 S <sup>1</sup>	10/160 S <sup>1</sup>	10/560 S <sup>1</sup>	10/1000 S <sup>1</sup>	5/310 S <sup>1</sup>	I <sub>TSM</sub> 50/60 Hz	di/dt
	2/10 S <sup>2</sup>	1.2/50 S <sup>2</sup>	10/160 S <sup>2</sup>	10/560 S <sup>2</sup>	10/1000 S <sup>2</sup>	10/700 S <sup>2</sup>		
	A min	A min	A min	A min	A min	A min		
B	250	250	150	100	80	100	30	500

Notes:

1. Current waveform in  $\mu$ s
  2. Voltage waveform in  $\mu$ s
- Peak pulse current rating ( $I_{PP}$ ) is repetitive and guaranteed for the life of the product.
  - $I_{PP}$  ratings applicable over temperature range of -40 C to +85 C
  - The device must initially be in thermal equilibrium with -40°C < T<sub>J</sub> < +150°C

### Thermal Considerations

Symbol	Parameter	Value	Unit
T <sub>J</sub>	Operating Junction Temperature Range	- 40 to + 150	°C
T <sub>S</sub>	Storage Temperature Range	- 40 to +150	°C
R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	90	°C/W



Part Number	Marking	$V_{DRM}$ @ $I_{DRM}=5$ A	$V_S$ @100V/ S	$V_T$ @ $I_T=2.2A$	$I_S$	$I_T$	$I_H$	$C_0$ 1MHz	
		V min	V max	V max	mA max	A max	mA min	pF min	pF max
P0080SB	P008B	6	25	4	800	2.2	50	25	150
P0300SB	P03B	25	40	4	800	2.2	50	15	140
P0640SB	P06B	58	77	4	800	2.2	150	40	60
P0720SB	P07B	65	88	4	800	2.2	150	35	60
P0900SB	P09B	75	98	4	800	2.2	150	25	55
P1100SB	P11B	90	130	4	800	2.2	150	30	50
P1300SB	P13B	120	160	4	800	2.2	150	25	45
P1500SB	P15B	140	180	4	800	2.2	150	25	40
P1800SB	P18B	170	220	4	800	2.2	150	25	35
P2000SB	P20B	180	220	4	800	2.2	150	20	35
P2300SB	P23B	190	260	4	800	2.2	150	25	35
P2600SB	P26B	220	300	4	800	2.2	150	20	35
P3100SB	P31B	275	350	4	800	2.2	150	20	35
P3500SB	P35B	320	400	4	800	2.2	150	20	35
P4000SB	P40B	360	460	4	800	2.2	150	20	35
P4500SB	P45B	400	540	4	800	2.2	150	20	35
P5000SB	P50B	440	600	4	800	2.2	150	20	35

Notes:

- Absolute maximum ratings measured at  $T_A=25$  C (unless otherwise noted).
- Devices are bi-directional.

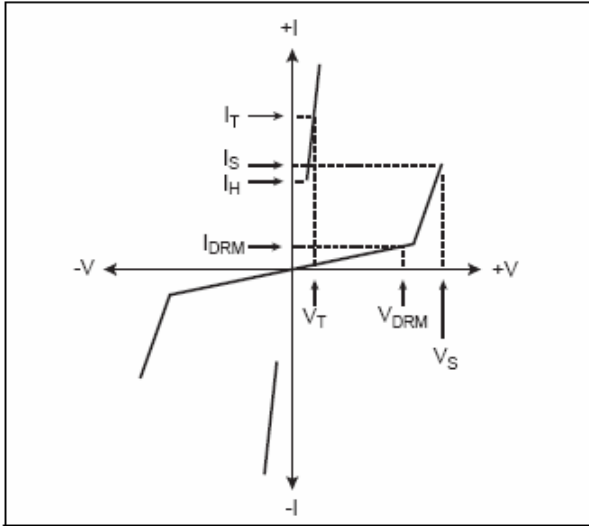


Figure1 V-I Characteristics

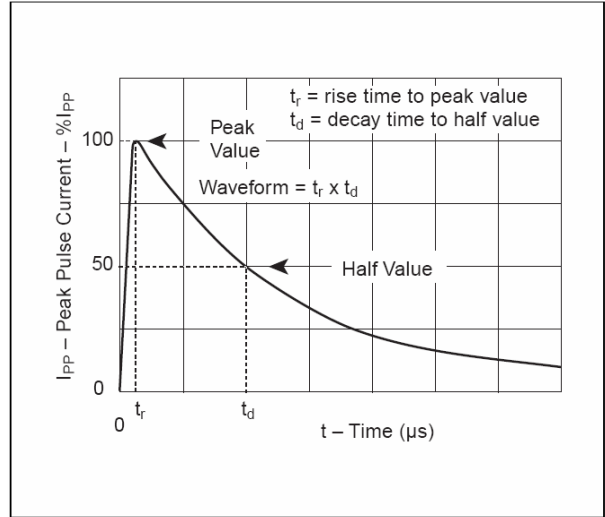


Figure2  $t_r \times t_d$  Pulse Wave-form

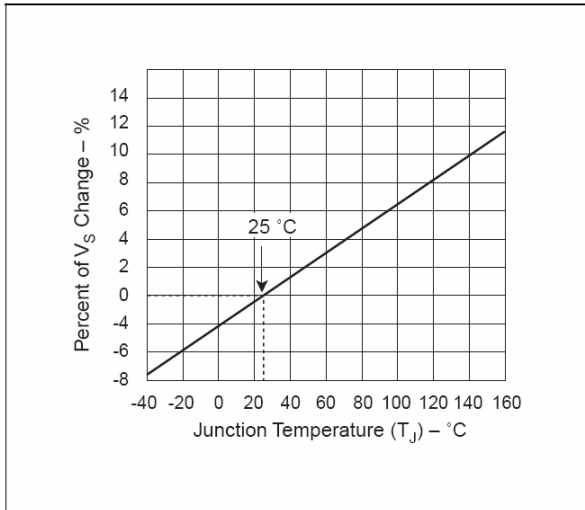


Figure3  
Normalized  $V_S$  Change versus Junction Temperature

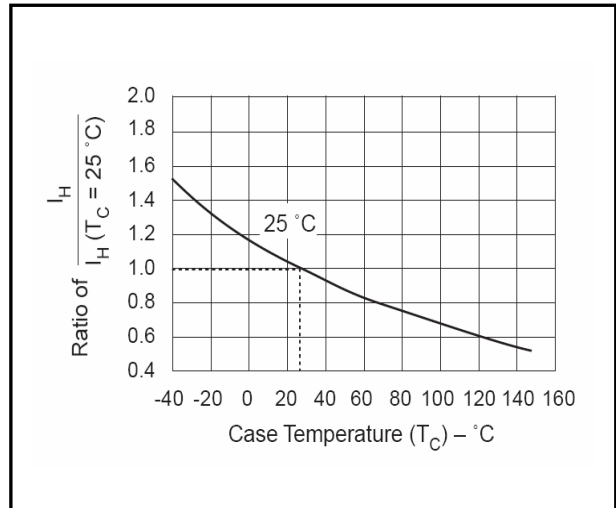


Figure4  
Normalized DC Holding Current