

SMB Plastic-Encapsulate Diodes

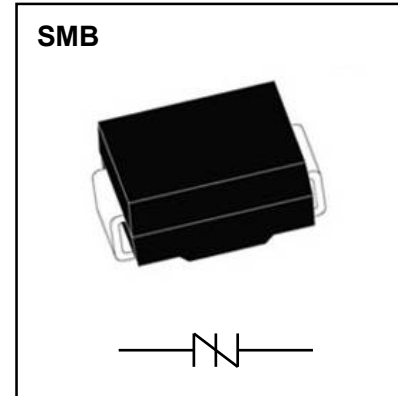
Thyristor Surge Suppressors

Features

- Low switching voltage
- 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

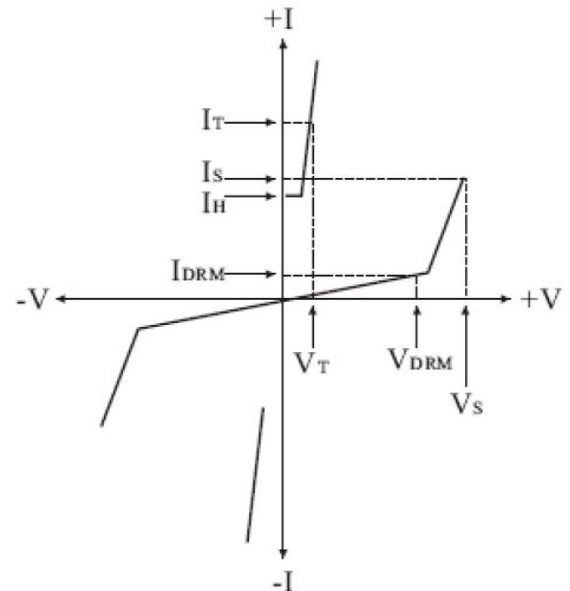
Applications

- Protect circuit



Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Definition
CO	Off-state Capacitance—typical capacitance measured in off state
di /dt	Rate of Rise of Current —maximum rated value of the acceptable rate of rise in current over time
IS	Switching Current—maximum current required to switch to on state
IDRM	Leakage Current —maximum peak off-state current measured at VDRM
IH	Holding Current —minimum current required to maintain on state
IPP	Peak Pulse Current—maximum rated peak impulse current
IT	On-state Current—maximum rated continuous on-state current
ITSM	Peak One-cycle Surge Current —maximum rated one-cycle AC current
VS	Switching Voltage —maximum voltage prior to switching to on state
VDRM	Peak Off-state Voltage —maximum voltage that can be applied while maintaining off state
VF	On-state Forward Voltage —maximum forward voltage measured at rated on-state current
VT	On-state Voltage —maximum voltage measured at rated on-state current



Electrical Characteristics

Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PART NUMBER	V _{DRM} V Min.	I _{DRM} uA Max.	V _s V Max.	I _s mA	V _T V Max.	I _T A	I _H mA	C _o pF Max.
P0080SCE	6	5	25	800	4	2.2	≥50	130

- 1、Vs is measured at 100KV/S
- 2、Off-state capacitance is measured in V_{DC}=2V,V_{RMS}=1V,F=1MHz
- 3、All measurements are made at an ambient temperature of 25°C

Surge Ratings

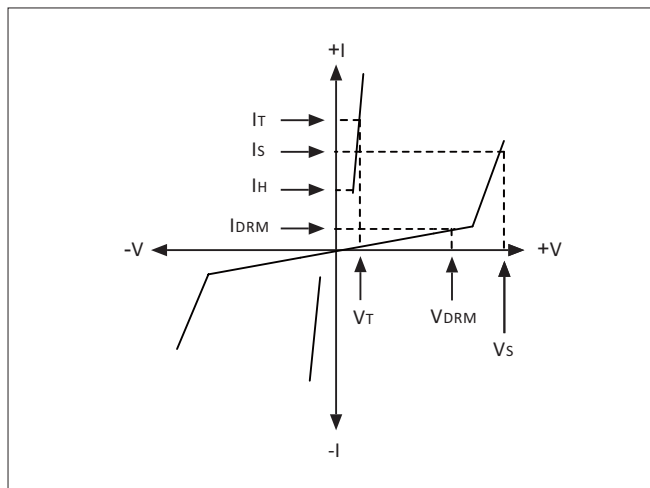
Series	I _{pp} (A) min			
	2 × 10us	8 × 20us	10 × 360us	10 × 1000us
P0080SCE	400	400	175	100

Limiting Values (Absolute Maximum Rating)

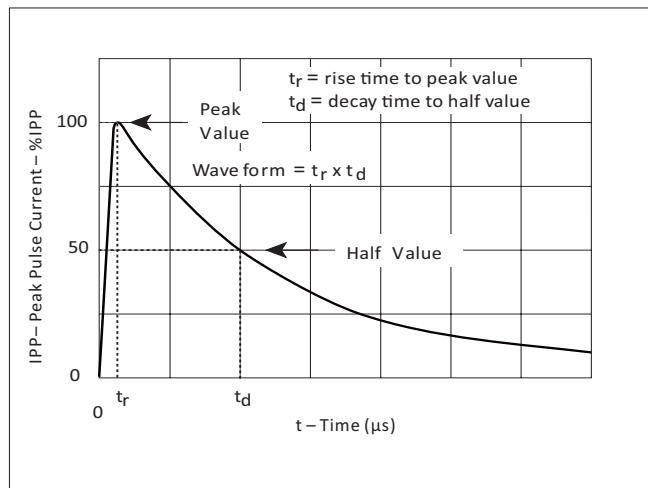
Symbol	Parameter	Value	Unit
T _J	Operating Junction Temperature	-40 to +150	°C
T _S	Storage Temperature Range	-40 to +150	°C
ReJA	Junction to Ambient on printed circuit	90	°C/W

Typical Characteristics

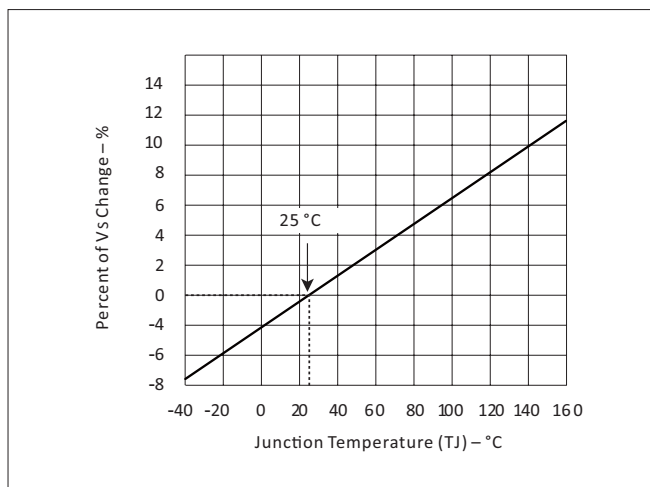
V-I Characteristics



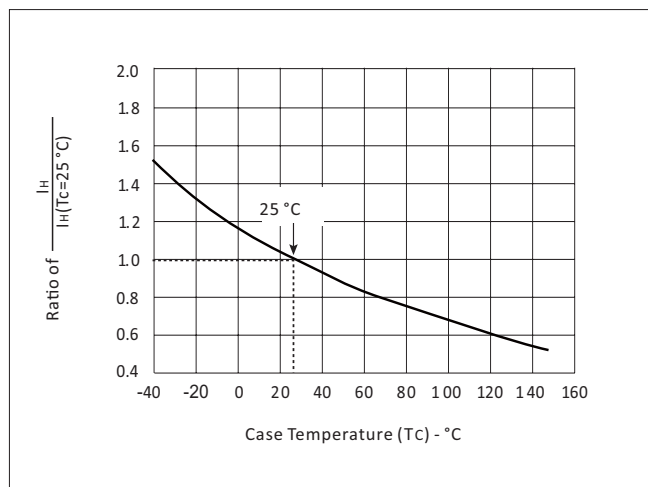
$t_r \times t_d$ Pulse Waveform



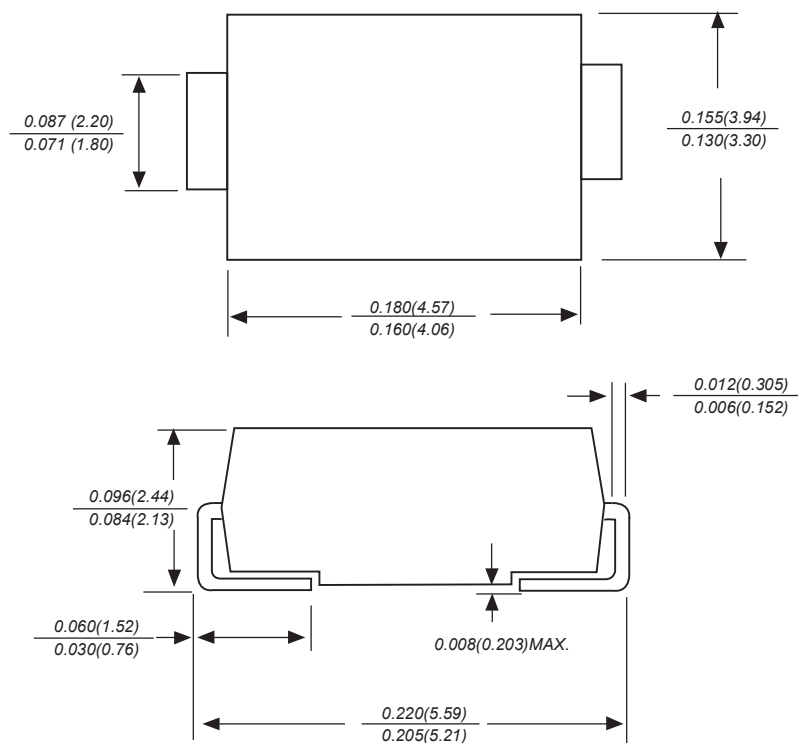
Normalized V Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature

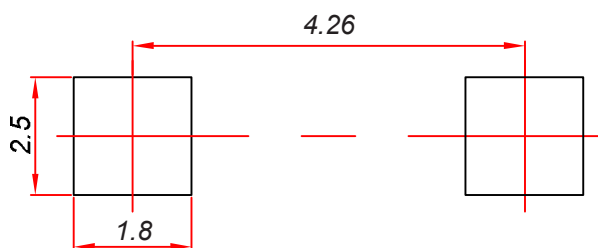


SMB Package Outline Dimensions



Dimensions in inches and (millimeters)

SMB Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05 \text{ mm}$.
3. The pad layout is for reference purposes only.

NOTICE

JSMD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSMD does not assume any liability arising out of the application or use of any product described herein.

Reel Taping Specifications For Surface Mount Devices-SMB

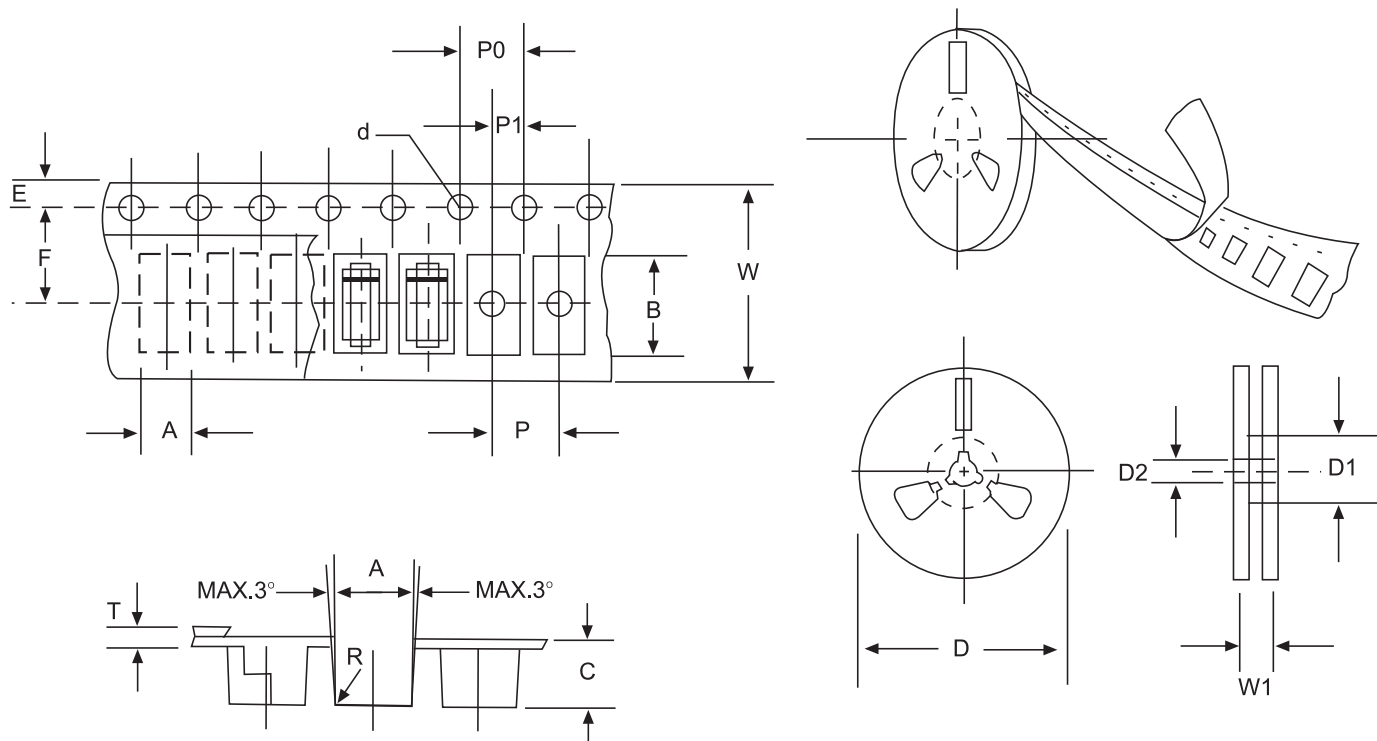


FIG:CONFIGURATION OF AXIAL TAPING

ITEM	SYMBOL	SMB mm(inch)
Carrier width	A	4.09±0.1(0.161±0.004)
Carrier length	B	5.82±0.1(0.229±0.004)
Carrier depth	C	3.33±0.1(0.131±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.0002)
Reel outside diameter	D	330/178±2.0(13/7.0±0.79)
Reel inner diameter	D1	8.0±0.2(0.315±0.008)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Sprocket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.65±0.05(0.222±0.002)
Punch hole pitch	P	8.0±0.1(0.315±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Total tape thickness	T	0.32±0.1(0.013±0.004)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

NOTE: Devices are packed in accordance with EIA standard RS-481-A and specification given above.