

## SMB Plastic-Encapsulate Diodes

### Schottky Rectifier Diodes

#### Features:

- $I_{F(AV)}$  2A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

#### Applications:

- Rectifier

#### Marking

- SS2X / SK2X

X : From 2 To 20

SMB



#### Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK2								
				2B	3B	4B	5B	6B	8B	10B	15B	20B
Marking Code				SS22 SK22	SS23 SK23	SS24 SK24	SS25 SK25	SS26 SK26	SS28 SK28	SS210 SK210	SS215 SK215	SS220 SK220
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	$V_{RMS}$	V		14	21	28	35	42	56	70	105	140
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave · Resistance load · $T_a=100^{\circ}C$	2.0								
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave · 1 cycle · $T_a=25^{\circ}C$	60								
Junction Temperature	$T_J$	$^{\circ}C$		-55 ~ +150								
Storage Temperature	$T_{STG}$	$^{\circ}C$		-55 ~ +150								

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

Item	Symbol	Unit	Test Condition	SK2								
				2B	3B	4B	5B	6B	8B	10B	15B	20B
Peak Forward Voltage	$V_F$	V	$I_F=2.0A$	0.55			0.65			0.85		
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$			0.2			0.1		
	$I_{RRM2}$			$T_a=100^{\circ}C$			10			5.0		
Thermal Resistance(Typical)	$R_{\theta JA}$	$^{\circ}C/W$	Between junction and ambient				75					
	$R_{\theta JL}$		Between junction and terminal				17					
Maximum Tcase	$T_C$	$^{\circ}C$	Enclosure temperature				133					

#### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

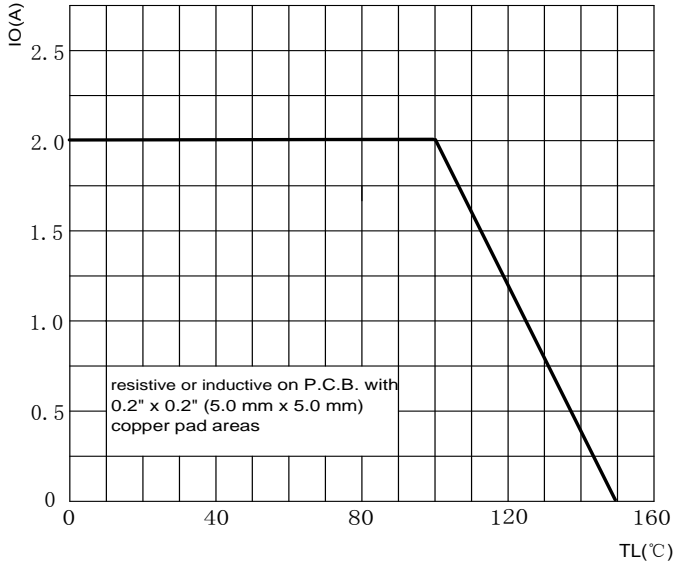


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

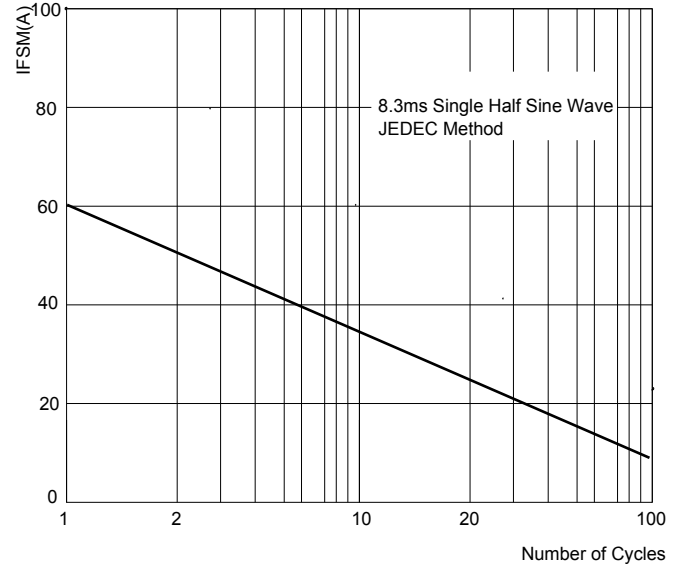


FIG.3: TYPICAL FORWARD CHARACTERISTICS

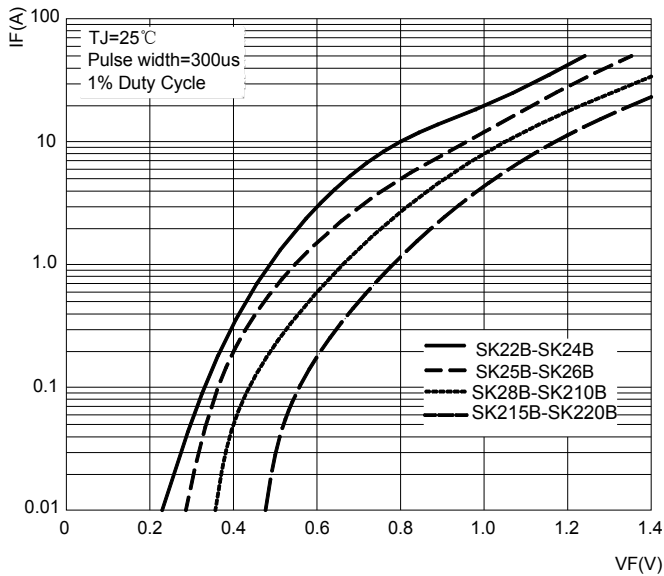
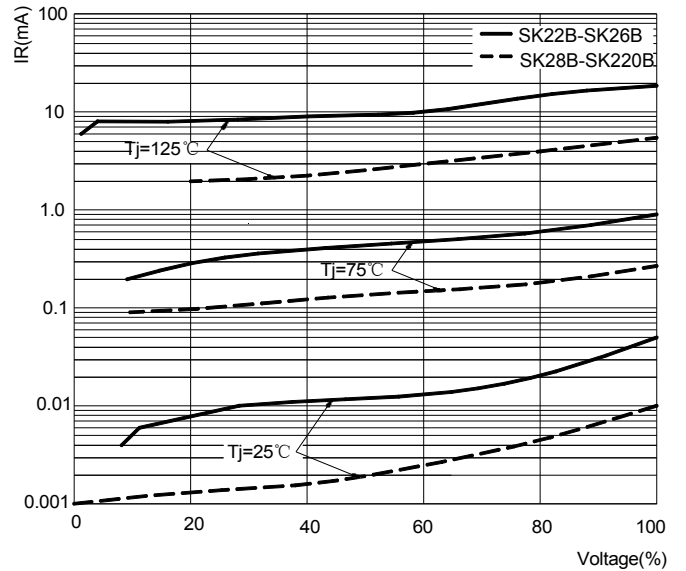
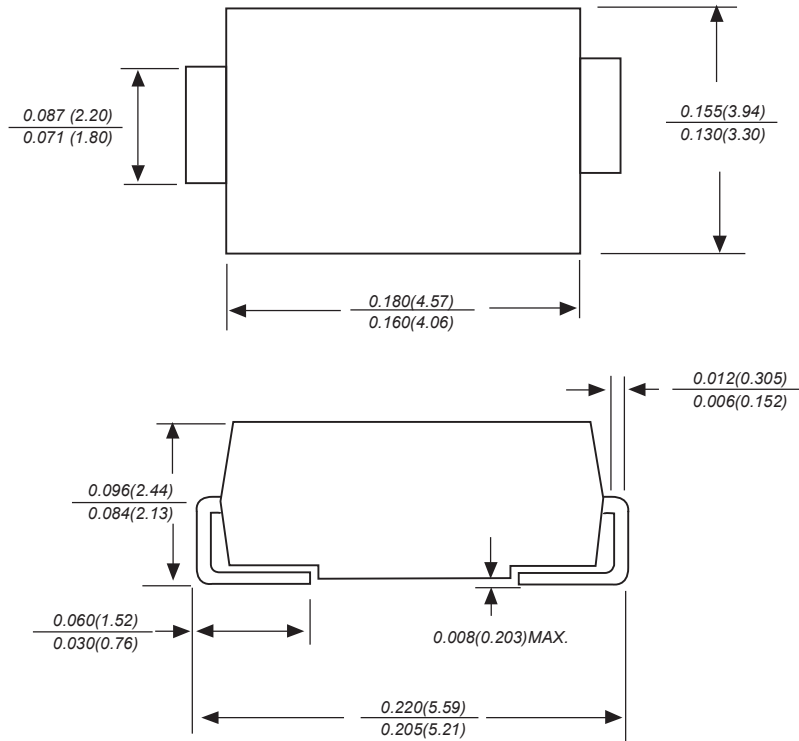


FIG.4: TYPICAL REVERSE CHARACTERISTICS

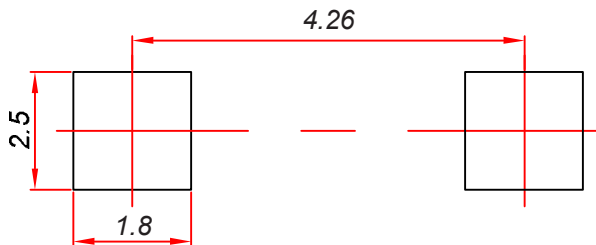


### SMB Package Outline Dimensions



Dimensions in inches and (millimeters)

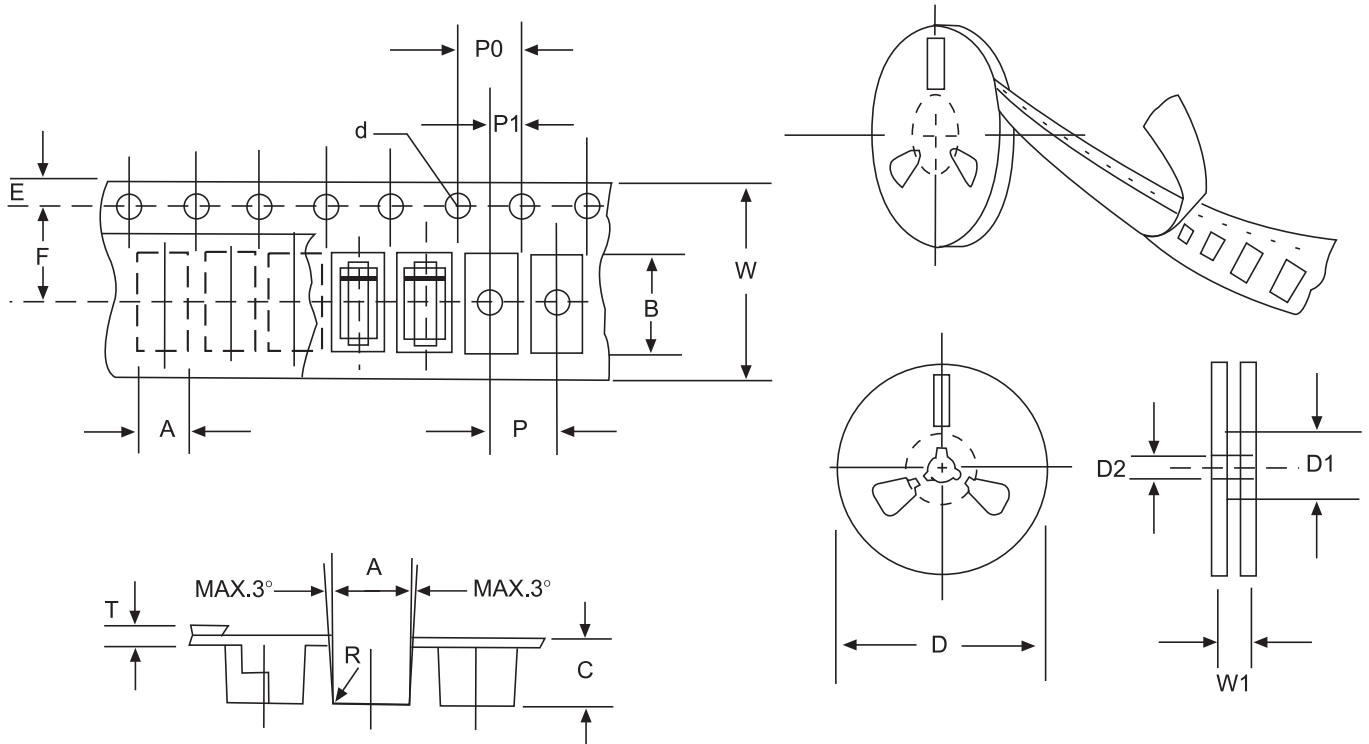
### SMB Suggested Pad Layout



**Note:**

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

**Reel Taping Specifications For Surface Mount Devices-SMBG**



**FIG: CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING**

ITEM	SYMBOL	SMBG 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	2.50±0.1(0.100±0.004)
Sprocket hole	d	1.55±0.05 (0.061±0.002)
Reel outside diameter	D	330±2.0(13±0.079)
Reel inner diameter	D1	75 ±1.0 ( 2.95 ±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Strocket 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)
Totall 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.