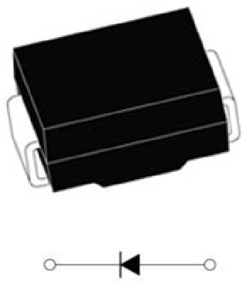
DONGGUAN NANJING ELECTRONICS LTD.,

SMB Plastic-Encapsulate Diodes

S210B THRU S220B Schottky Rectifier Diodes

SMB



Features

- $I_{F(AV)}$ 2A
- V_{RRM} 100V-200V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- S2XB

X：From 10 To 20

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	S2	
				10B	20B
Repetitive Peak Reverse Voltage	V_{RRM}	V		100	200
Maximum RMS Voltage	V_{RMS}	V		100	200
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave， Resistance load，Ta=130℃	2.0	
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave， 1 cycle，Ta=25℃	60	
Junction Temperature	T_J	℃		-55 ~ +175	
Storage Temperature	T_{STG}	℃		-55 ~ +175	

Electrical Characteristics (T =25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition		S2	
					10B	20B
Peak Forward Voltage	V_F	V	I_F=2.0A		0.82	0.92
Peak Reverse Current	I_{RRM1}	uA	V_{RM}=V_{RRM}	Ta =25℃	2	
	I_{RRM2}			Ta =125℃	250	
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		75	
	$R_{\theta J-L}$		Between junction and terminal		25	
Maximum Tcase	Tc	℃	Enclosure temperature		148	

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

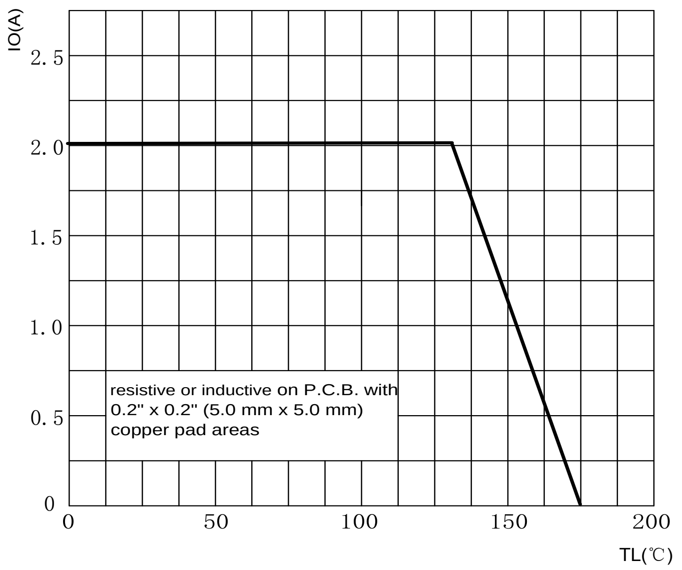


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

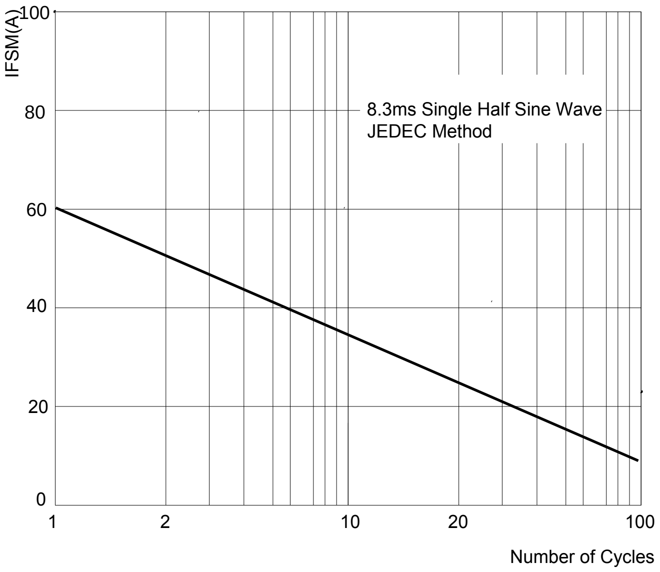


FIG.3: TYPICAL FORWARD CHARACTERISTICS

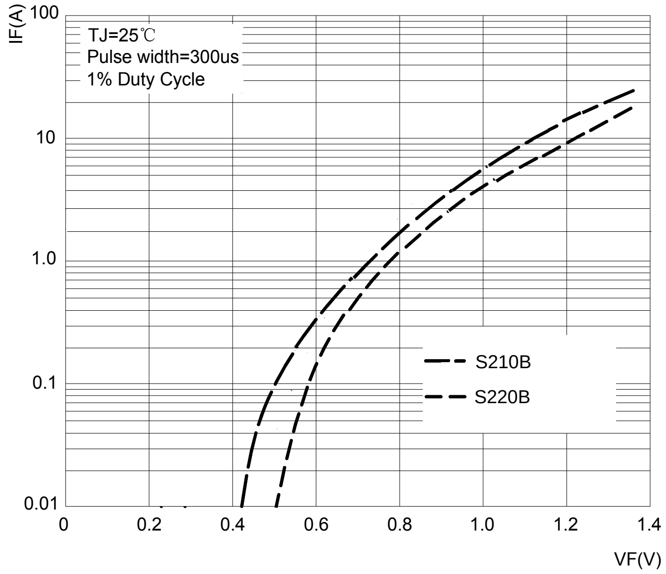
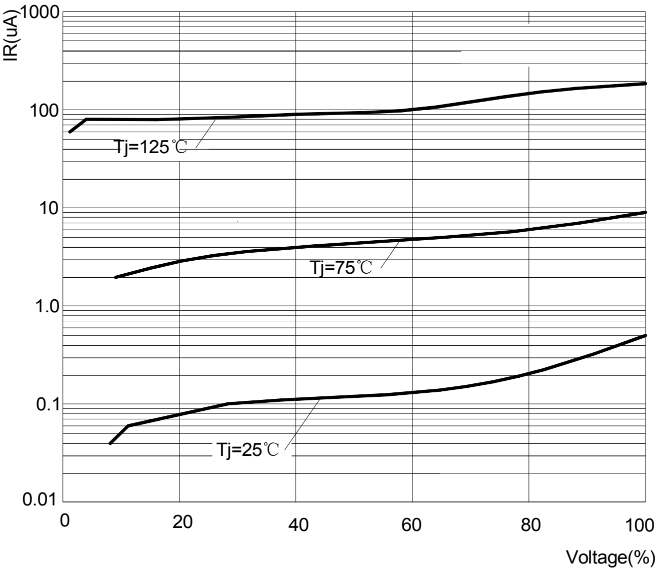
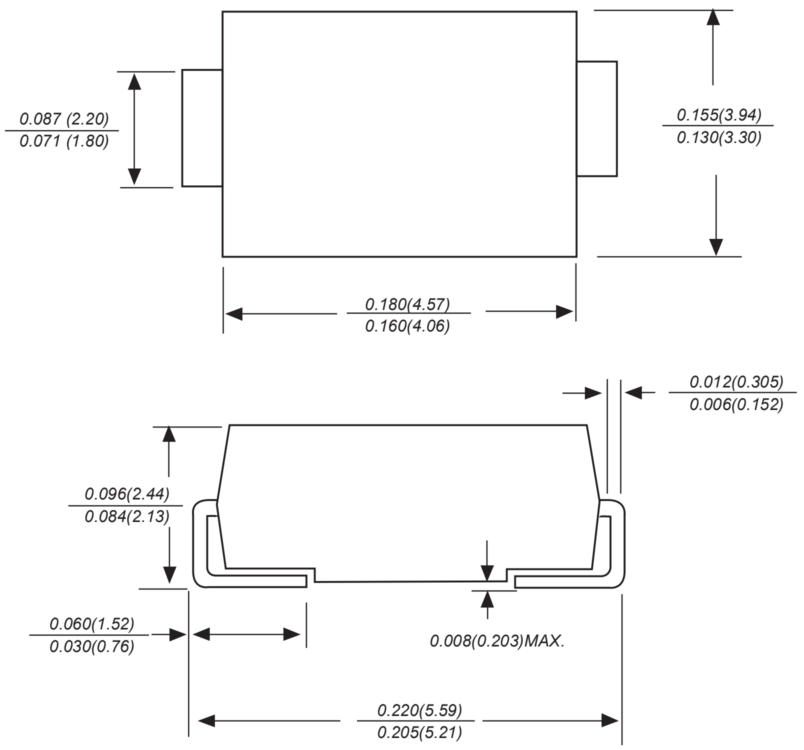


FIG.4: TYPICAL REVERSE CHARACTERISTICS

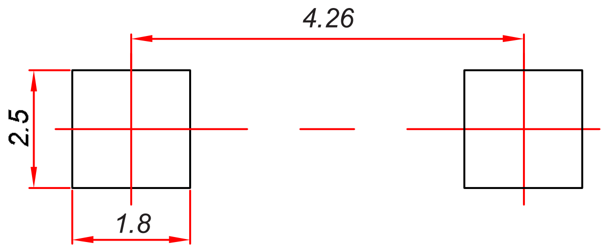


SMB Package Outline Dimensions



Dimensions in inches and (millimeters)

SMB Suggested Pad Layout



Note:

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

Reel Taping Specifications For Surface Mount Devices-SMBG

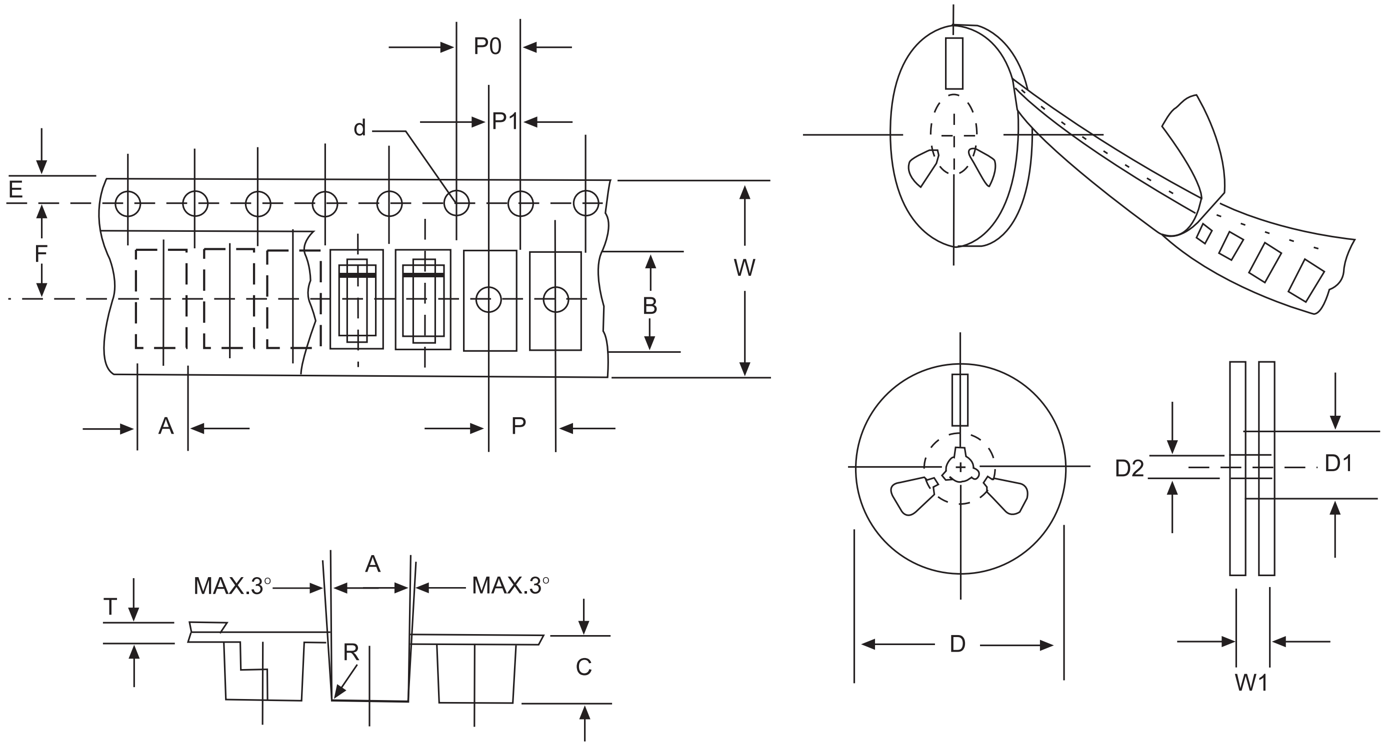


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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.