



DONGGUAN NANJING ELECTRONICS LTD.,

ABS Plastic-Encapsulate Bridge Rectifier

SBS22 THRU SBS210 SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

Features

- $I_{F(AV)}$ 2A
- V_{RRM} 20V-100V
- High surge current capability
- Glass passivated chip

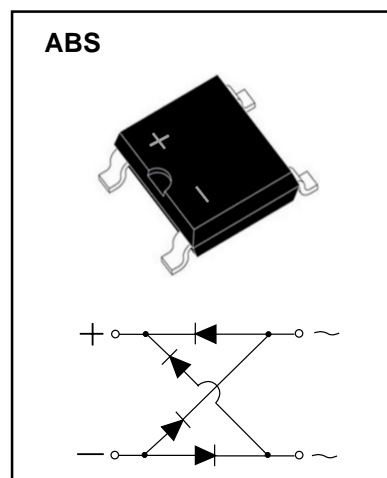
Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- SBS2X

X : From 2 To 10



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	SBS				
				22	24	26	28	210
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	40	60	80	100
Maximum RMS Voltage	V_{RMS}	V		14	28	42	56	70
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load, $T_a=115^\circ\text{C}$ On alumina substrate	2.0				
Surge(Non-repetitive)Forward Current	I_{FSM}	A	8.3ms sine wave, 1 cycle, $T_j=25^\circ\text{C}$	60				
			1.0ms sine wave, 1 cycle, $T_j=25^\circ\text{C}$	100				
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	10.35				
Operation Junction and Storage Temperature Range	T_j, T_{stg}	$^\circ\text{C}$		-55 ~+150				

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

Item	Symbol	Unit	Test Condition	SBS					
				22	24	26	28	210	
Peak Forward Voltage	V_{FM}	V	$I_{FM}=2.0\text{A}$	0.55		0.70	0.85		
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$					
	I_{RRM2}			$T_a=100^\circ\text{C}$					
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	Between junction and ambient		50				
	$R_{\theta J-L}$		Between junction and lead		20				
Typical junction capacitance	CJ	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		250				

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

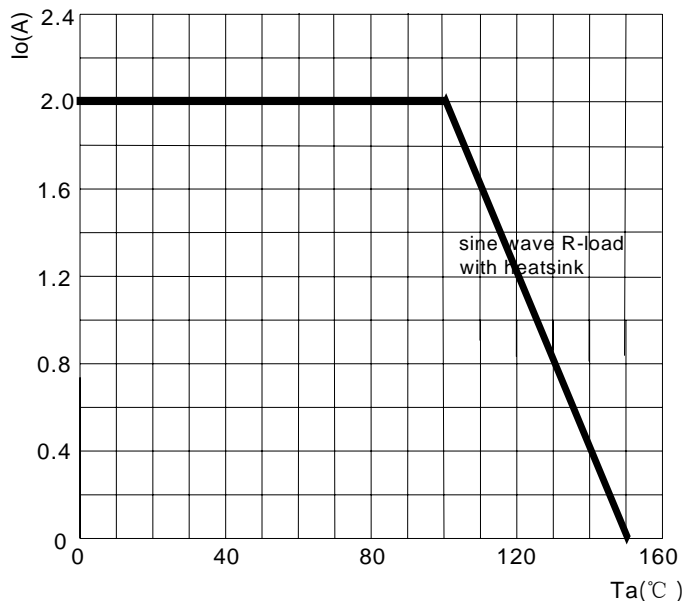


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

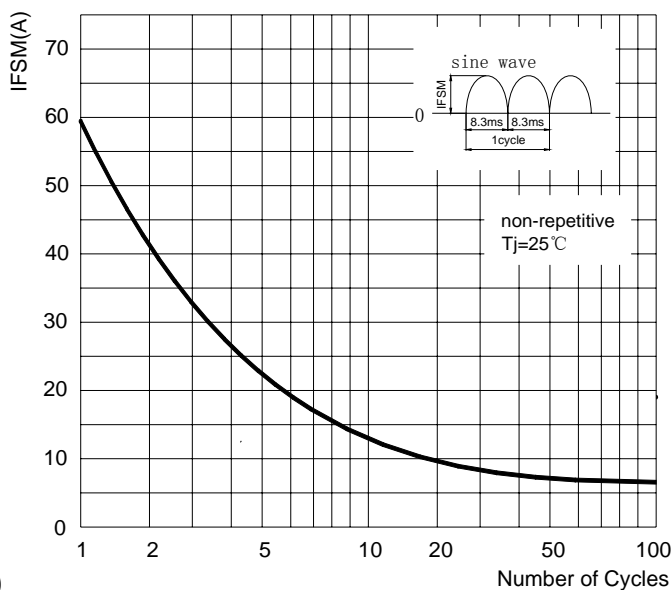


FIG.3: TYPICAL FORWARD CHARACTERISTICS

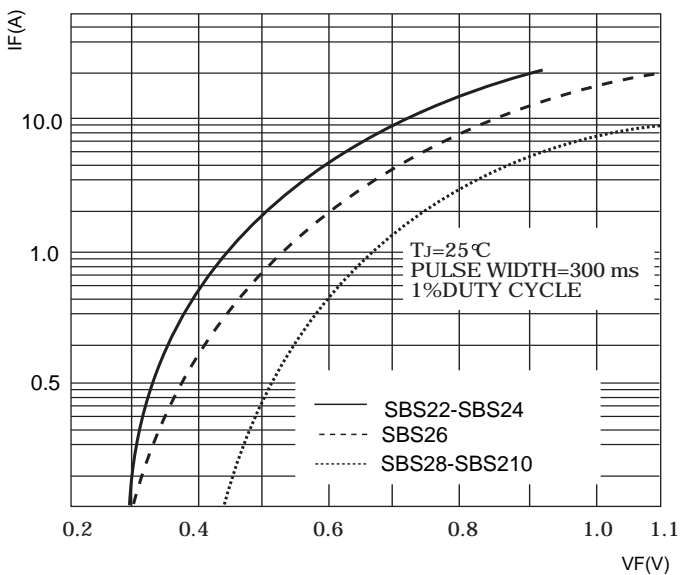
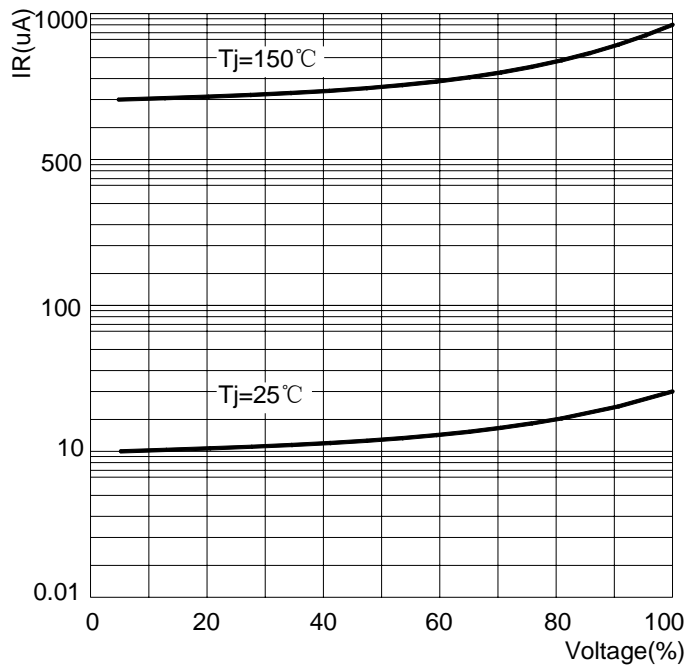
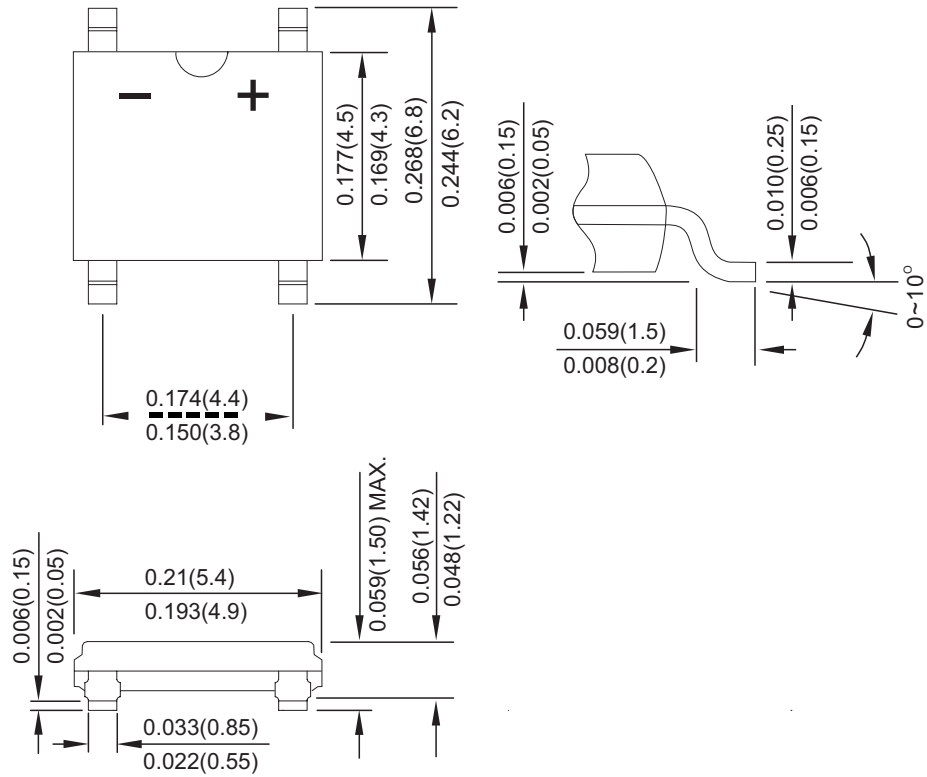


FIG.4: TYPICAL REVERSE CHARACTERISTICS

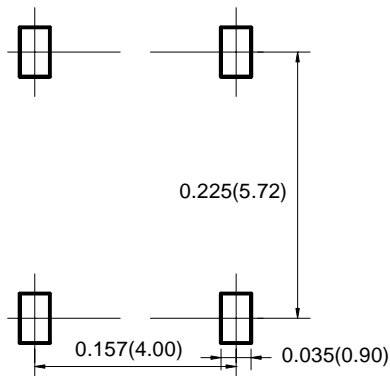


ABS Package Outline Dimensions



Dimensions in inches and (millimeters)

ABS 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.

Reel Taping Specifications For Surface Mount Devices-ABS

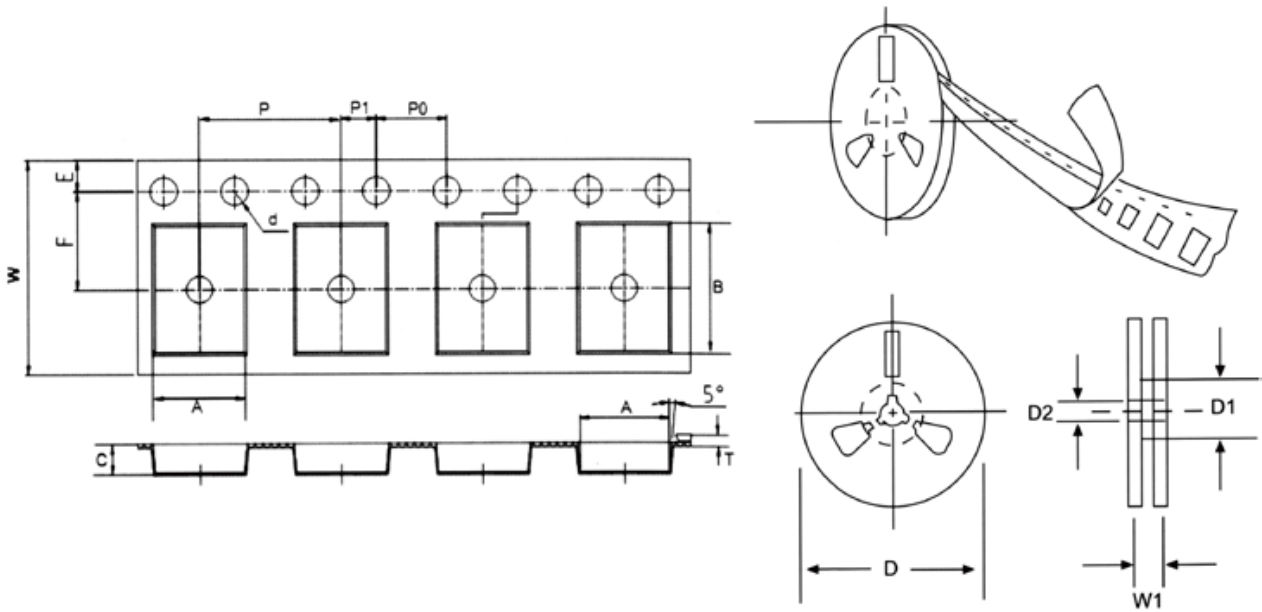


FIG: CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	ABS mm(inch)
Carrier width	A	5.40±0.1(0.213±0.004)
Carrier length	B	6.90±0.05(0.272±0.002)
Carrier depth	C	2.10±0.1(0.083±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11± 0.079)
Reel inner diameter	D1	75 ±1.0 (2.95 ±0.039)
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	5.5±0.05(0.217±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	0.10-0.70(0.004-0.028)
Tape width	W	12.0±0.3/-0.1(0.472±0.004)
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.