ABS Plastic-Encapsulate Bridge Rectifier

Fast Recovery Bridge Rectifier

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 1000V
- High surge current capability
- Glass passivated chip

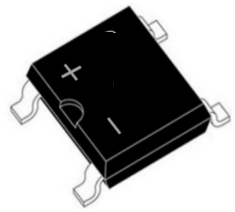
Applications

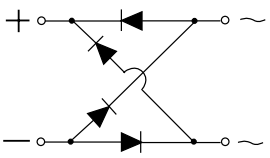
- General purpose 1 phase Bridge rectifier applications

Marking

- RABS10

ABS





Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	RABS10
Repetitive Peak Reverse Voltage	V_{RRM}	V		1000
Maximum RMS Voltage	V_{RMS}	V		700
Maximum DC Blocking Voltage	V_{DC}	V		1000
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load,TL=100℃	1.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	8.3ms half sine wave, 1 cycle, T_j=25℃	30
Current Squared Time	I^2t	A^2S	t=8.3ms Tj=25℃， Rating of per diode	3.73
Operation Junction and Storage Temperature Range	T_J,T_{stg}	℃		-55 ~+150

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	RABS10
Maximum Peak Forward Voltage	V_{FM}	V	I_{FM}=1.0A, Pulse measurement, Rating of per diode	1.3
Maximum Peak Reverse Current	I_{RRM}	μA	V_{RM}=V_{RRM} , Pulse measurement, Rating of per diode	5
MaximumPeak Reverse Current	trr	ns	I_F=0.5A,I_R=1.0A,Irr=0.25A	500
Thermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient, On alumina substrate	75
	$R_{\theta J-L}$		Between junction and lead	25
	$R_{\theta J-C}$		Between junction and case	29
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	10

Typical Characteristics

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

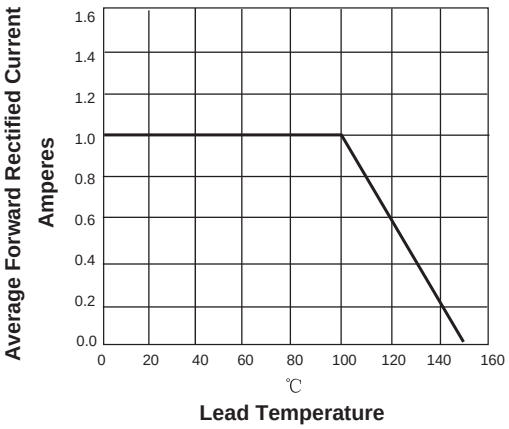


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

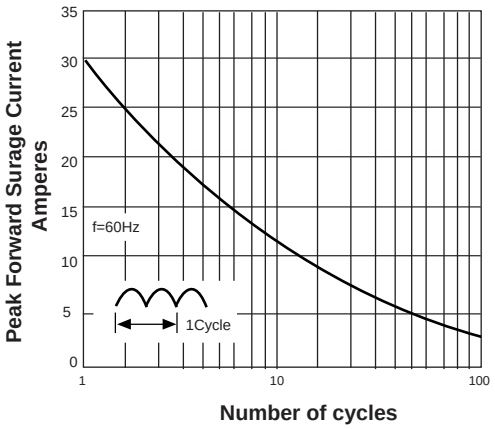


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

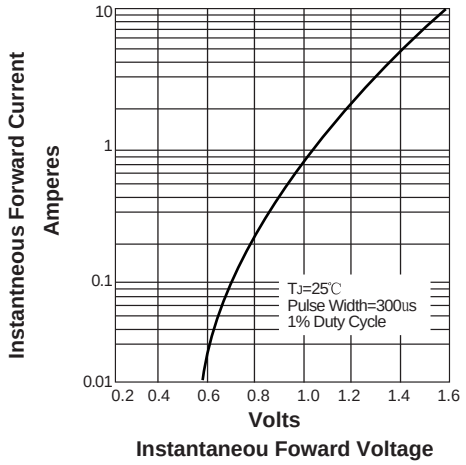
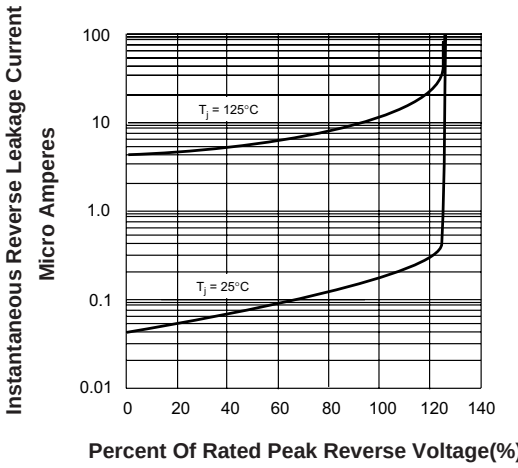
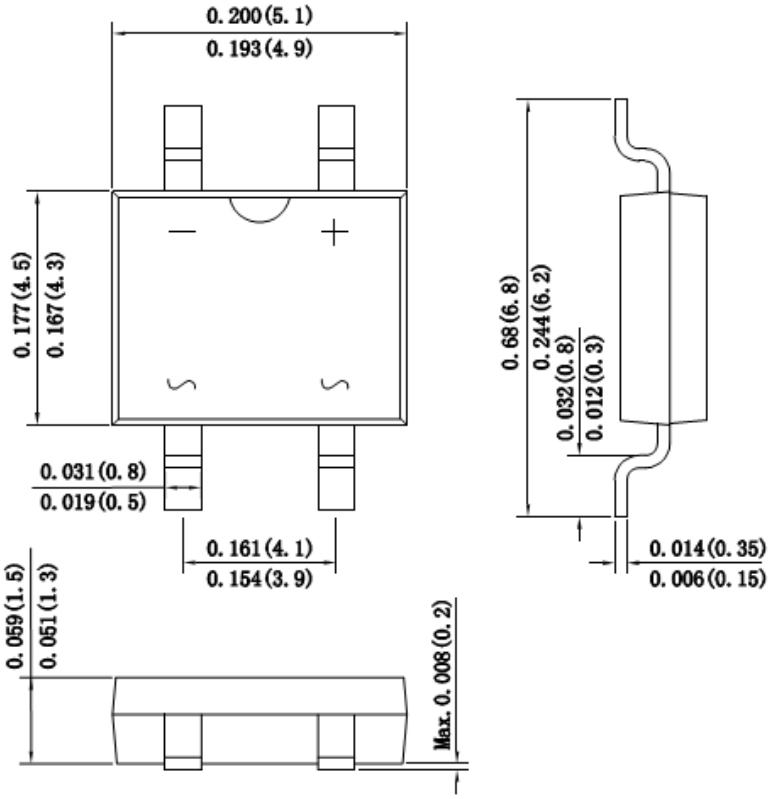


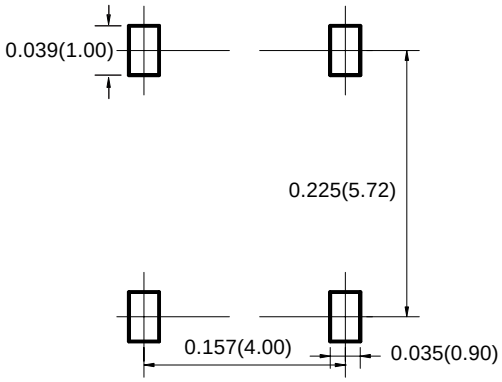
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



ABS Package Outline Dimensions



ABS Suggested Pad Layout



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

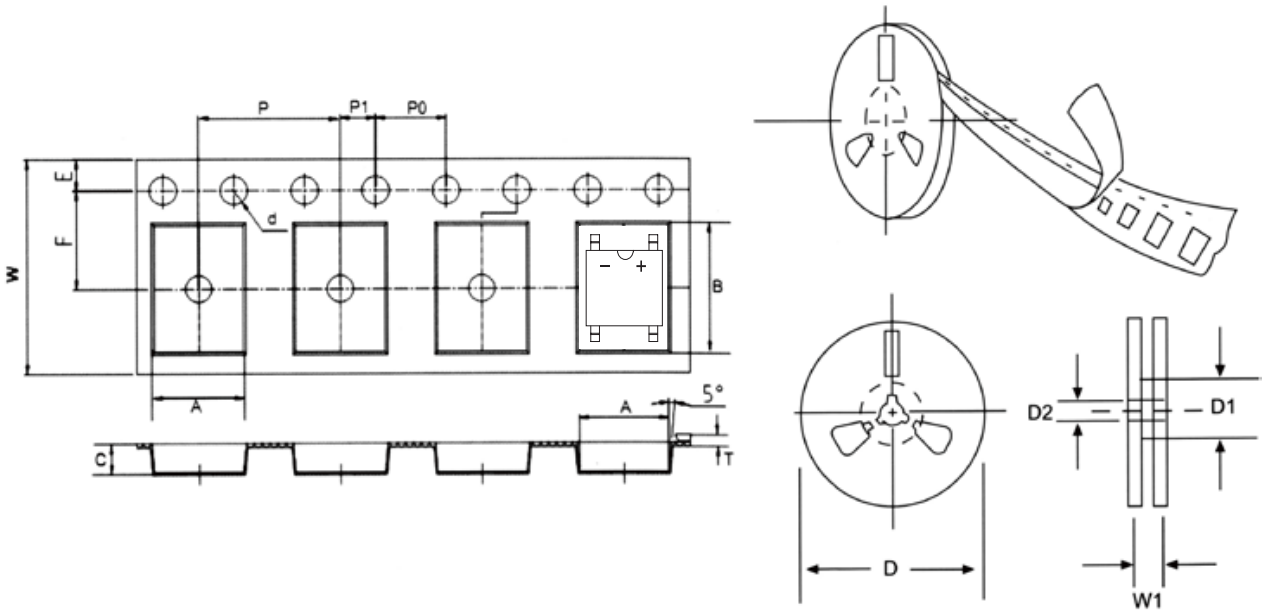


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
Stroket 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)
Totall 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 packde in accordance with EIA standard RS-481-A and specification given above.