Single Phase Glass Passivated Fast Recovery Bridge Rectifiers

Reverse Voltage: 50V to 1000V
Forward Current: 1 Amp

Features

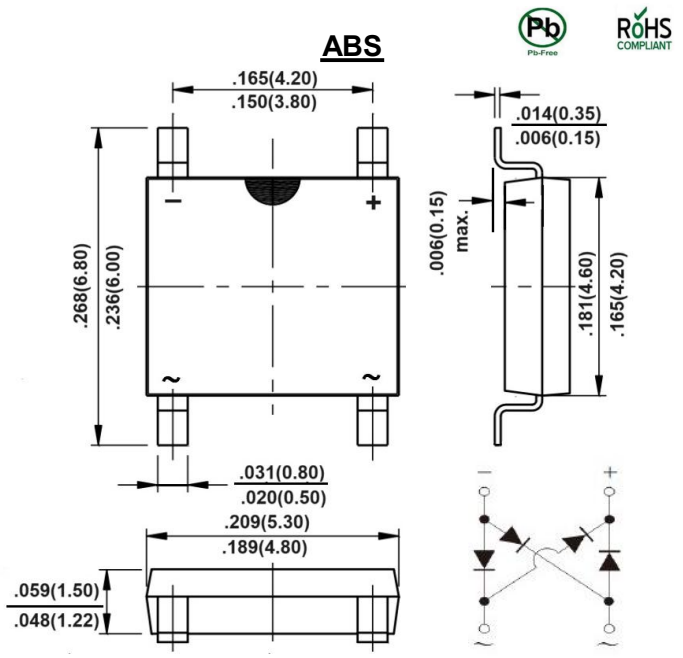
- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

Mechanical Data

- **Package**: ABS
  Molding compound meets UL 94 V-0 flammability rating
- **Terminals**: Matte tin plated leads,
  solderable per MIL-STD-750, Method 2026
- **Polarity**: Symbol marking on body

Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, switching mode power supply,adapter, audio equipment, and home appliances applications.



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions		SYM.	RABS05	RABS1	RABS2	RABS4	RABS6	RABS8	RABS10	Unit
Device marking code			RABS05	RABS1	RABS2	RABS4	RABS6	RABS8	RABS10	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current (see Fig. 1)	On glass-epoxy P.C.B (Note 1)	$I_{O(AV)}$	0.8							A
	On aluminum substrate (Note 2)		1.0							
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load		I_{FSM}	30							A
Operating junction range		T_j	-55 to+150							℃
Storage temperature range		T_{STG}	-55 to+150							℃

Thermal Characteristics (Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions	SYM.	RABS05	RABS1	RABS2	RABS4	RABS6	RABS8	RABS10	Unit
Maximum Thermal Resistance per Leg, Junction To Lead (Note 1)	$R_{\theta JL}$	25							℃/W
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	$R_{\theta JA}$	62.5							℃/W

Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions		SYM.	RABS05	RABS1	RABS2	RABS4	RABS6	RABS8	RABS10	Unit
Maximum reverse recovery time	IF=0.5A, IR=-1.0A, IRR=-0.25A	Trr	150				250	500		ns
Maximum Instantaneous Forward Voltage per diode	IF= 1A	V_{FM}	1.30							V
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I_R	5							μA
	TA = 125℃		100							

Notes:
1. Units mounted on glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads.
2. Units mounted on aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

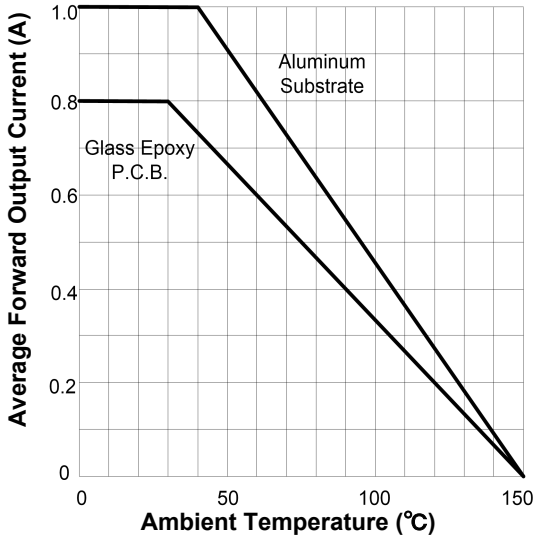


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

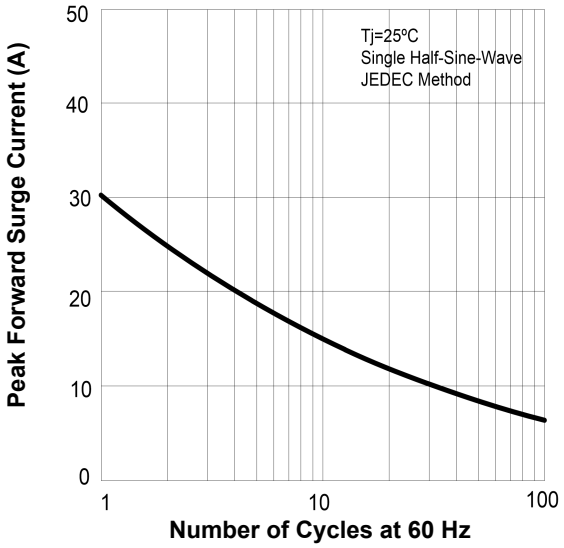


FIG. 3- TYPICAL FORWARD VOLTAGE

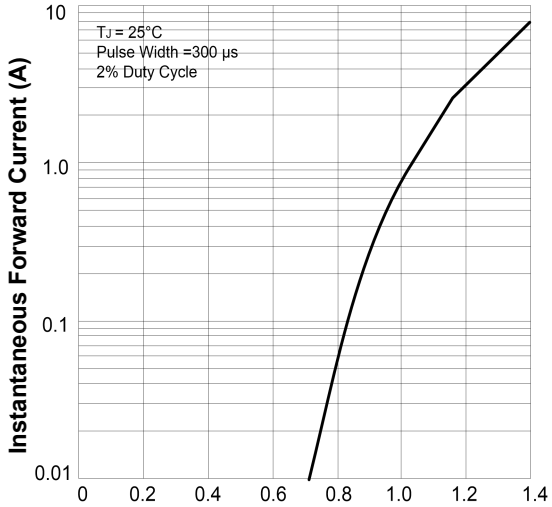
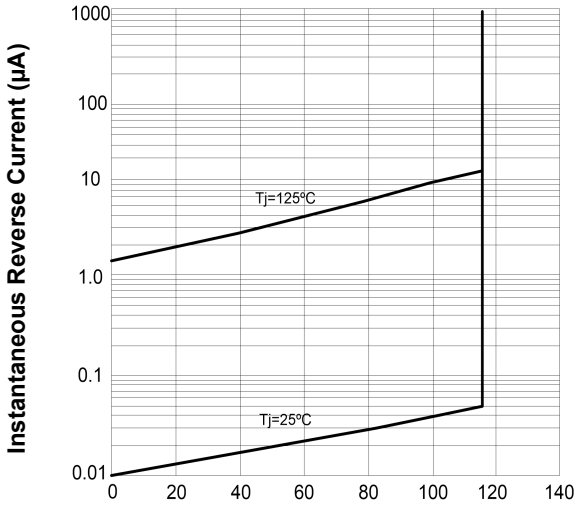
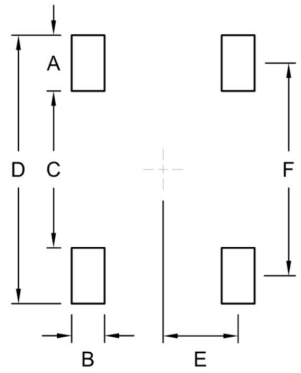


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

Recommended Pad Layout



SYMBOL	Unit(mm)	Unit(inch)
A	1.50	0.059
B	0.90	0.035
C	4.22	0.166
D	7.22	0.284
E	2.05	0.081
F	5.72	0.225

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