

**Single Phase Glass Passivated
Fast Recovery Bridge Rectifiers**

**Reverse Voltage: 50V to 1000V
Forward Current: 3.0 Amp**

Features

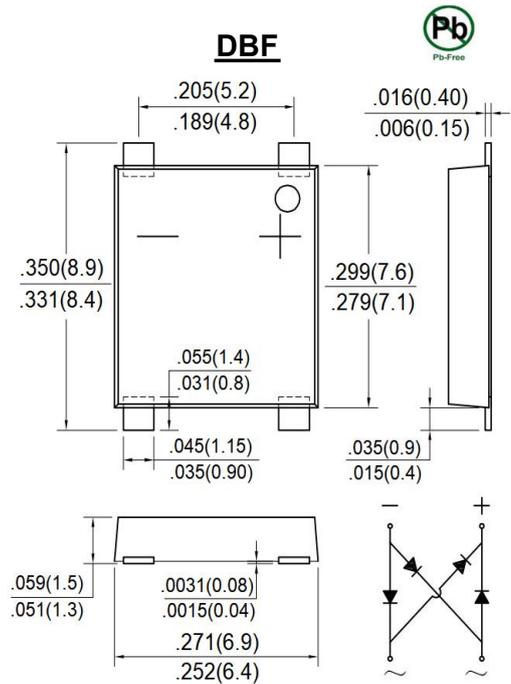
- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

Mechanical Data

- **Package:** DBF
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

Suitable for AC to DC bridge full wave rectification for SMPS, LED lighting, adapter, battery charger, home appliances, office equipment, and telecommunication applications.



Package Outline Dimensions in Inches (Millimeters)

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

Parameter&Test Conditions	SYM.	RDBF 3005	RDBF 301	RDBF 302	RDBF 304	RDBF 306	RDBF 308	RDBF 310	Unit
Device marking code		RDBF3005	RDBF301	RDBF302	RDBF304	RDBF306	RDBF308	RDBF310	
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)	I _{O(AV)}	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	100							A
Operating junction range	T _j	-55 to+150							°C
Storage temperature range	T _{STG}	-55 to+150							°C

Thermal Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	RDBF 3005	RDBF 301	RDBF 302	RDBF 304	RDBF 306	RDBF 308	RDBF 310	Unit
Maximum Thermal Resistance per Leg, Junction To Lead (Note 1)	R _{θJL}	22							°C/W
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	R _{θJA}	60							°C/W

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	RDBF 3005	RDBF 301	RDBF 302	RDBF 304	RDBF 306	RDBF 308	RDBF 310	Unit
Maximum reverse recovery time IF=0.5A, IR=-1.0A, IRR=-0.25A	T _{rr}	150				250	500		ns
Maximum Instantaneous Forward Voltage per diode IF= 3A	V _{FM}	1.30							V
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25°C	5							μA
	T _A = 125°C	200							

Notes:

1. Units mounted on PCB (16mm x 16mm Cu pad test board).

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

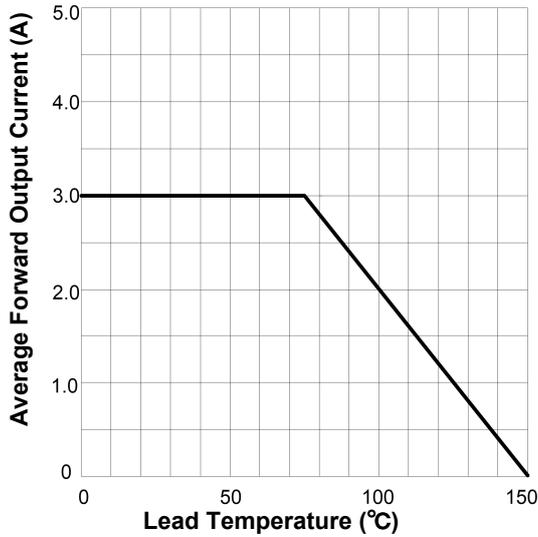


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

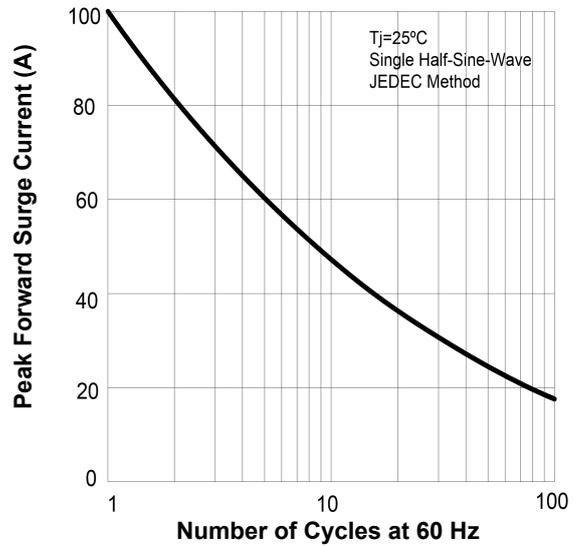


FIG. 3- TYPICAL FORWARD VOLTAGE

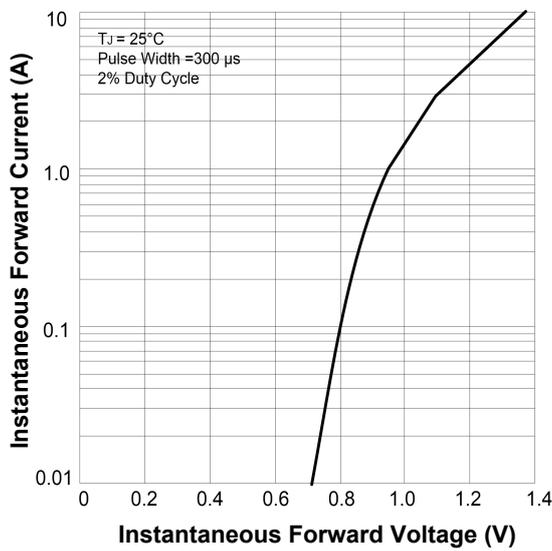
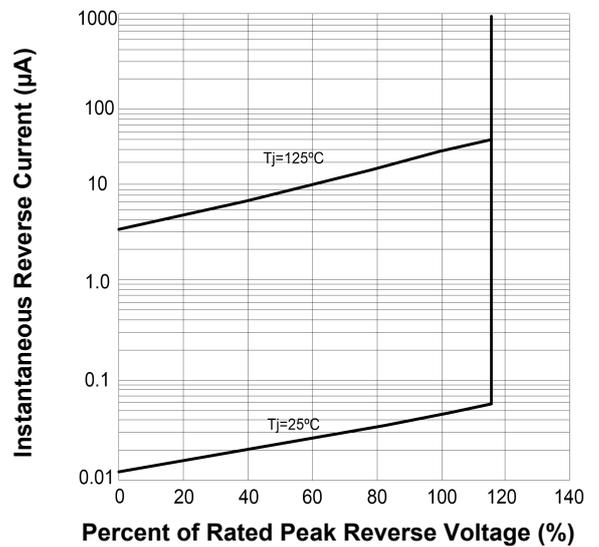


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.



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