



RDBF4005 THRU RDBF410

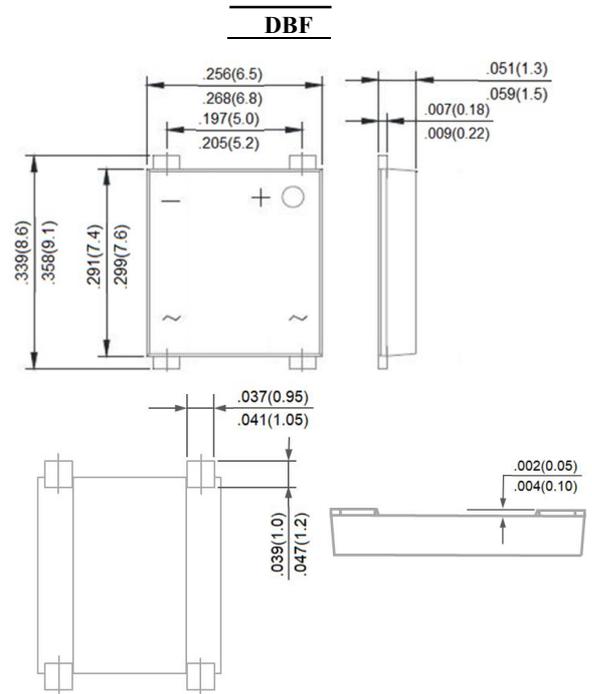
SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES

- Fast recovery glass passivated chip
- Low forward voltage drop
- High surge current capability
- Low reverse leakage current
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C for 10 seconds

MECHANICAL DATA

Case: Molded plastic, DBF
 Epoxy: UL 94V-0 rate flame retardant
 Terminals: Pure tin plated, lead free, Leads solderable
 per MIL-STD-202, method 208
 Mounting position: as Marking
 Weight: 0.213gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

| | Symbols | RDBF4005 | RDBF401 | RDBF402 | RDBF404 | RDBF406 | RDBF408 | RDBF410 | Units |
|---|-----------------|-------------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at TC=115°C | $I_{(AV)}$ | 4.0 | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 150 | | | | | | | Amp |
| Maximum Instantaneous Forward Voltage at 25°C @ $I_F=4.0A$ | V_F | 1.3 | | | | | | | Volts |
| Maximum Reverse Current at Rated DC Blocking Voltage @TA=25°C @TA=125°C | I_R | 5.0 500 | | | | | | | uAmp |
| Maximum Reverse Recovery Time (Note 1) | T_{RR} | 150 | | | | 250 | 500 | | nS |
| Typical Thermal Resistance between junction and lead | $R_{\theta JL}$ | 15 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | | | | | | | °C |

NOTE:

1- Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

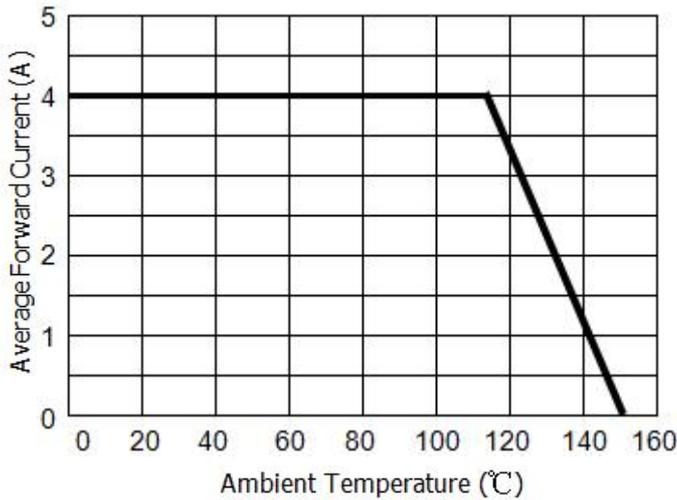


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

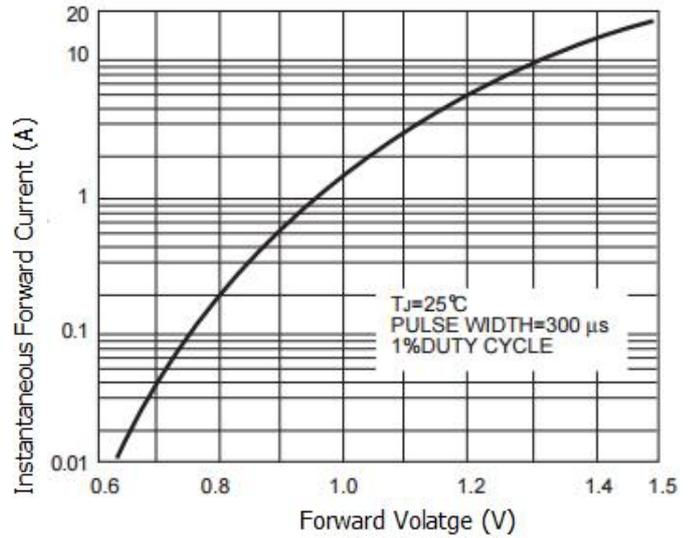


FIG.3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

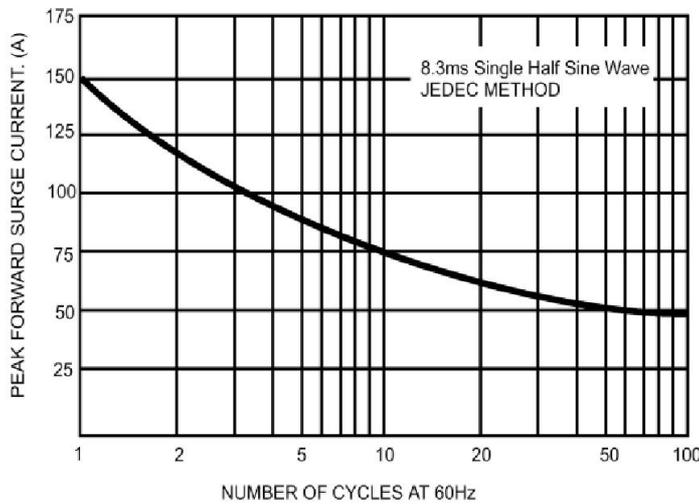


FIG.4 TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

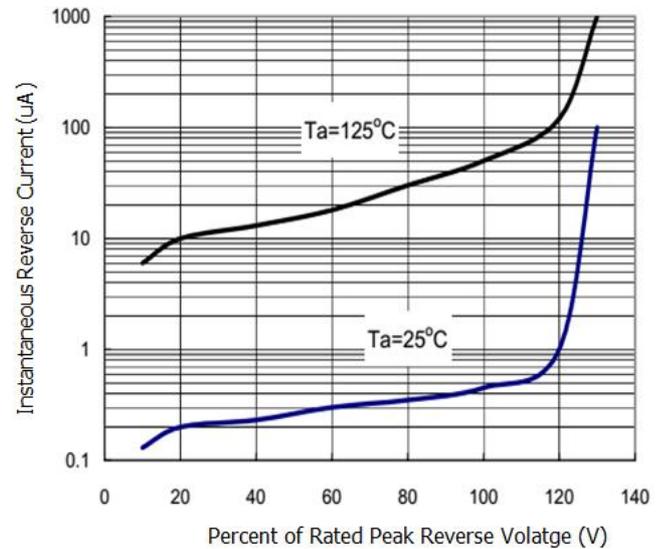


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

