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| Single Phase Glass Passivated Bridge Rectifiers | Reverse Voltage: 50V to 1000V Forward Current: 4.0 Amp |
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Features

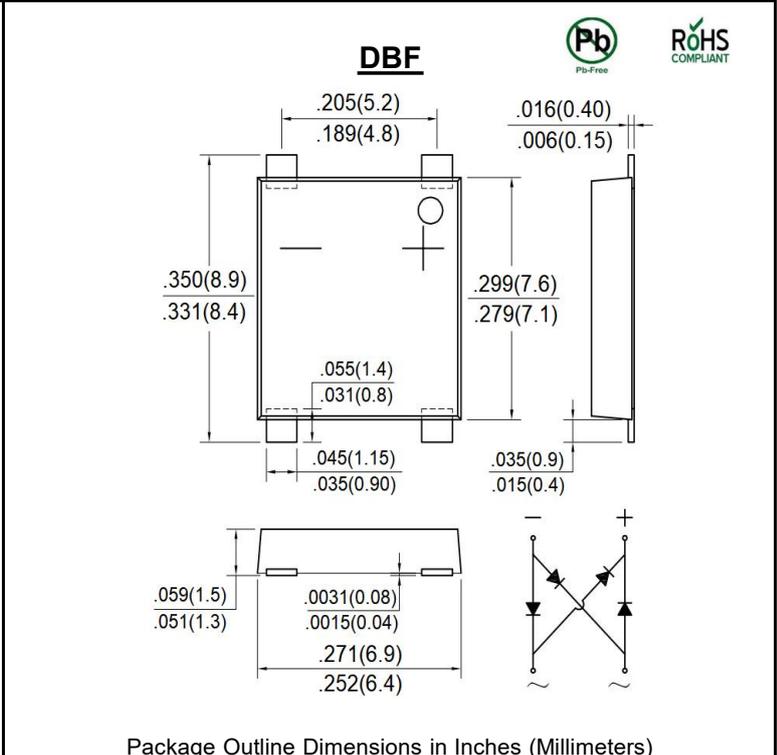
- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

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.



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

| Parameter&Test Conditions | SYM. | DBF4005 | DBF401 | DBF402 | DBF404 | DBF406 | DBF408 | DBF410 | Unit |
|---|--------------------|------------|--------|--------|--------|--------|--------|--------|------|
| Device marking code | | DBF4005 | DBF401 | DBF402 | DBF404 | DBF406 | DBF408 | DBF410 | |
| 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)} | 4.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load | I _{FSM} | 150 | | | | | | | 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. | DBF4005 | DBF401 | DBF402 | DBF404 | DBF406 | DBF408 | DBF410 | Unit |
|--|------------------|---------|--------|--------|--------|--------|--------|--------|------|
| Maximum Thermal Resistance per Leg, Junction To Lead (Note 1) | R _{θJL} | 15 | | | | | | | °C/W |
| Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1) | R _{θJA} | 55 | | | | | | | °C/W |

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

| Parameter&Test Conditions | SYM. | DBF4005 | DBF401 | DBF402 | DBF404 | DBF406 | DBF408 | DBF410 | Unit | |
|---|------------------------|-----------------|--------|--------|--------|--------|--------|--------|------|----|
| Maximum Instantaneous Forward Voltage per diode | IF= 4A | V _{FM} | 1.10 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage per diode | T _A = 25°C | I _R | 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

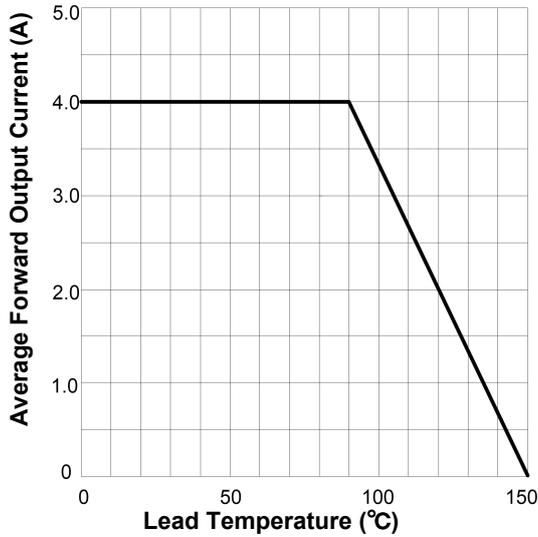


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

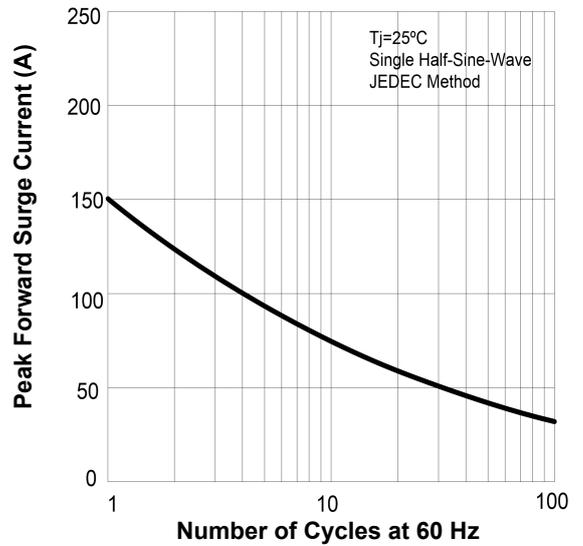


FIG. 3- TYPICAL FORWARD VOLTAGE

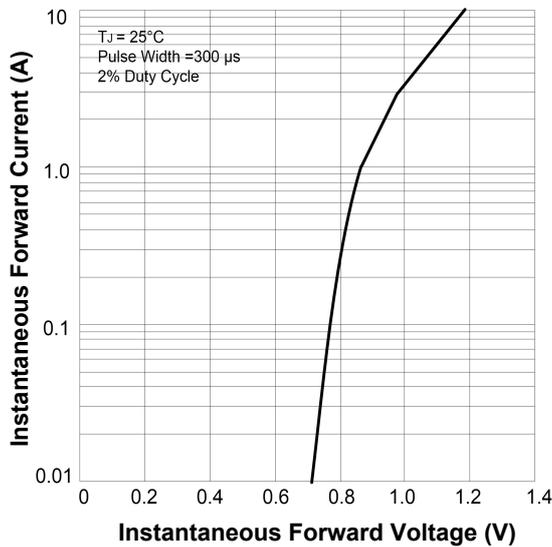
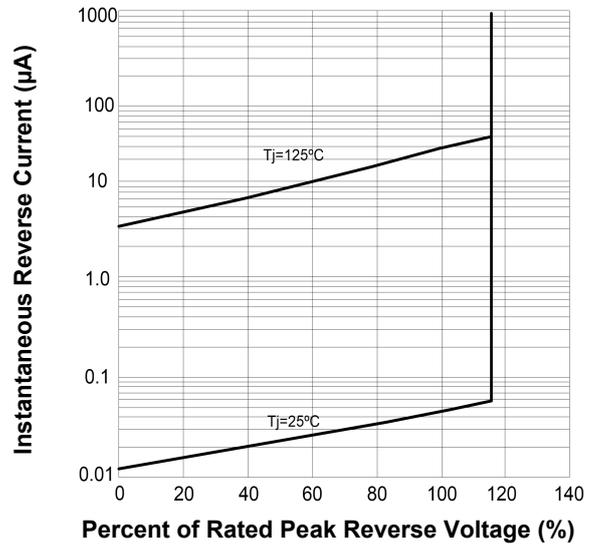


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.



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