

15A Glass Passivated Bridge Rectifier

Features

- Glass passivated chip junction
- Integrally molded heatsink provides very low thermal Resistance for Maximmm heat dissipation
- Universal 3-way terminals; snap-on, wire wrap-around Or P.C.B mounting
- Typical I_R less than $0.3\mu A$
- High forward surge current capability
- High temperature soldering guaranteed: $260^\circ C/10$ seconds at 5lbs.(2.3kg) tension
- This series is UL recognized under component index, File number E194718
- RoHS Compliant



Mechanical Data

| | |
|--------------------------|---|
| Case: | GBPC35, Molded plastic with heatsink integrally mounted in the bridge encapsulation |
| Epoxy: | Plastic package has UL flammability classification 94V-0 |
| Terminals: | Plated 0.25" (6.35mm) faston lugs |
| Polarity: | Polarity symbols molded on body |
| Mounting Position | See note 2 |
| Mounting Torque | 20in.-lb.Max |
| Weight: | 21grams |

Maximum Ratings And Electrical Characteristics ($T_{amb}=25^\circ C$)

| Symbol | Description | GBPC 15-005 | GBPC 15-01 | GBPC 15-02 | GBPC 15-04 | GBPC 15-06 | GBPC 15-08 | GBPC 15-10 | Unit | Conditions |
|-------------|--------------------------------------|-------------|------------|------------|------------|------------|------------|------------|------|------------|
| VRRM | Max. Repetitive Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| VRMS | Max. RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| VDC | Max. DC blocking voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |

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GBPC15-005 - GBPC15-10

| | | | | |
|-----------------------|--|-------------|------------------|---|
| IF(AV) | Max. Average Forward Rectified Output Current | 15.0 | A | See Fig.1 |
| IFSM | Peak Forward Surge Current | 300 | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC method) |
| VF | Max. Instantaneous Forward Voltage drop per leg | 1.1 | V | IF(AV)=7.5A |
| IR | Max. Reverse DC Current At Rated DC Blocking Voltage per leg | 5.0 | μA | TC = 25°C |
| | | 500 | μA | TC = 125°C |
| I²t | Rating for Fusing (1ms<t<8.3ms) | 375 | A ² s | |
| CJ | Typical junction capacitance | 300 | pF | f=1MHz VR= 4V |
| RthJc | Typical Thermal Resistance per leg | 1.9 | °C / W | Note 1 |
| TJ,TSTG | Operating Junction and Storage Temperature Range | -65 to +150 | °C | |

- Note:** 1. Thermal Resistance from junction to Case per leg.
 2. Bolt down on Heatsink with Silicone Thermal Compound Between and Mounting Surface for Maximum Heat Transfer with #10 Screw.

Typical Characteristics Curves

Fig.1-Max. Output Rectified Current

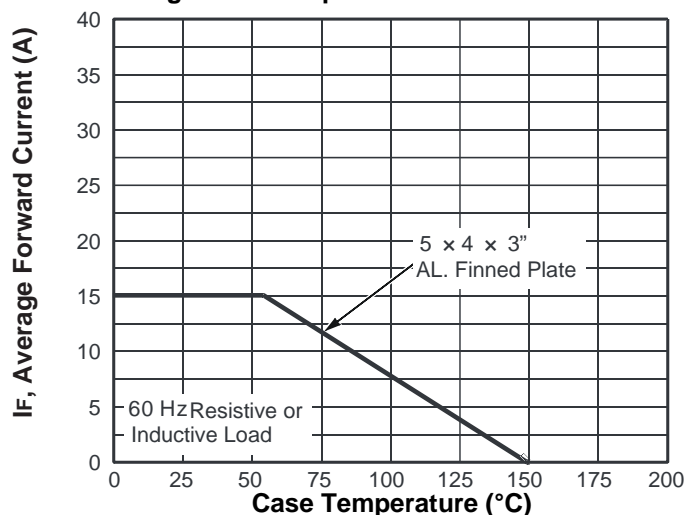
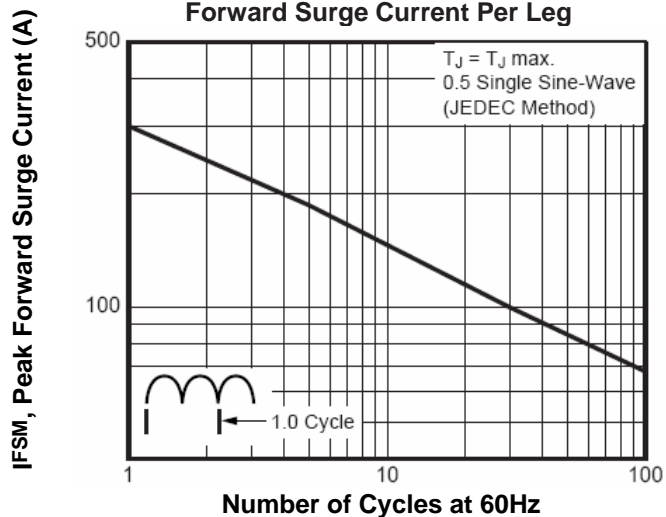


Fig.2-Max. Non-repetitive Peak Forward Surge Current Per Leg



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Fig.3-Typical Instantaneous Forward Characteristic Per Leg

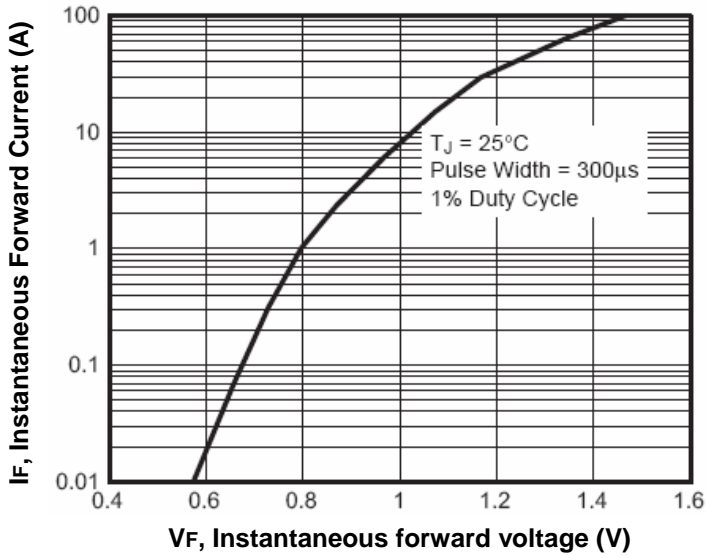


Fig.4-Typical Reverse Characteristics Per Leg

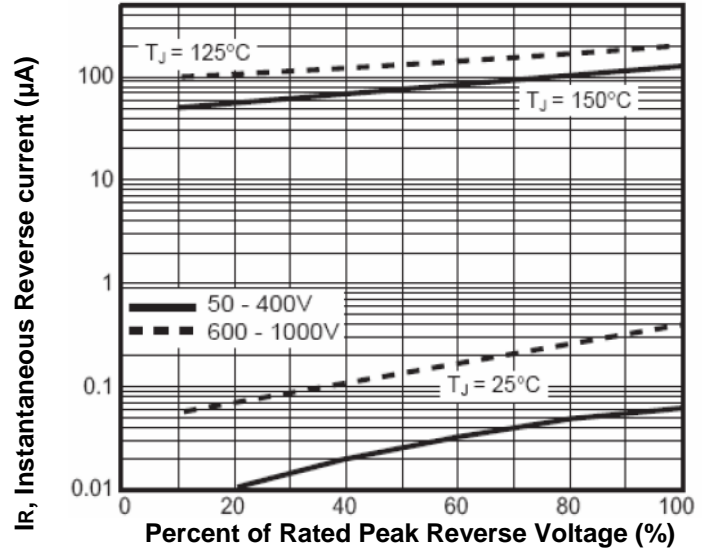
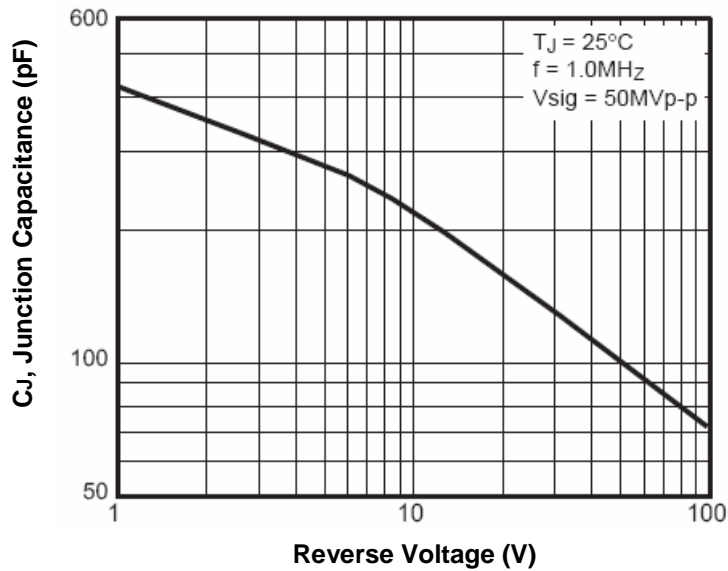


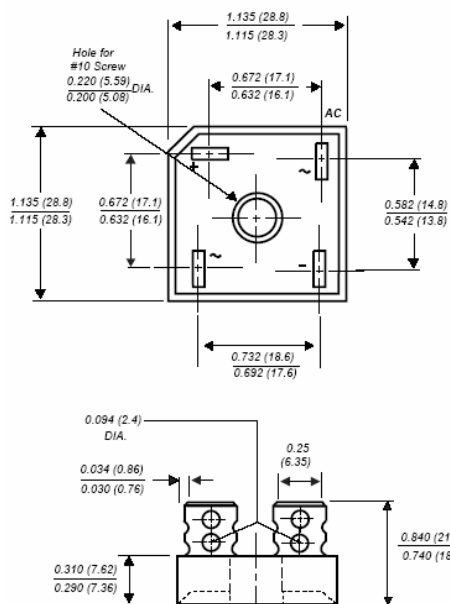
Fig.5-Typical Junction Capacitance Per Leg



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Dimensions in inch (mm)



GBPC35

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