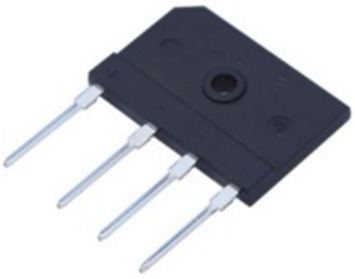
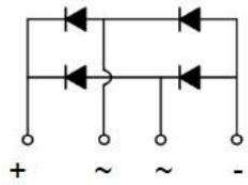
## Single Phase Bridge Rectifier

### Features

- Glass passivated chip
- Ideal for printed circuit boards
- High surge current capability
- Reverse Voltage : 200 to 1200V
- Forward Current : 35A
- High temperature soldering guaranteed:265℃/10 seconds



IGBJ




### Applications

- Single phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Industrial automation equipment
- Input rectifiers for inverter

### Module Type

| Type | VRRM | VRSM |
|---|---|---|
| IGBJ3502 | 200V | 300V |
| IGBJ3504 | 400V | 500V |
| IGBJ3506 | 600V | 700V |
| IGBJ3508 | 800V | 900V |
| IGBJ3510 | 1000V | 1100V |
| IGBJ3512 | 1200V | 1300V |

### Maximum Ratings

| Item | Conditions | Symbol | Values | Unit |
|---|---|---|---|---|
| Output Current | Single Phase,Sin Full Wave $T_c$=98℃ | $I_D$ | 35 | A |
| Surge Forward Current | $T_j$=25℃, t=50Hz(10ms), $V_R$=0V | $I_{FSM}$ | 400 | A |
| Circuit Fusing Consideration | t=10ms $T_j$=25℃ | $I^2t$ | 800 | $A^2s$ |
| Isolation Breakdown Voltage | AC 50Hz/60Hz; R.M.S; 1min | $V_{ISO}$ | 2000 | V |
| Operating Junction Temperature | | $T_j$ | -40 to +150 | ℃ |
| Storage Temperature | | $T_{stg}$ | -40 to +125 | ℃ |
| Mounting Torque | (Recommended torque:0.65 N·m) | $M_s$ | 0.8 | N·m |
| Module (Approximately) | | Weight | 7 | g |

## Thermal Characteristics

| Item | Conditions | Symbol | Values | Unit |
|---|---|---|---|---|
| Thermal Impedance, Max | Junction to Case(Per Total) | $R_{th(j-c)}$ | 0.7 | ℃/W |
| | Junction to Case(Per Diode) | | 2.8 | ℃/W |

## Electrical Characteristics

| Item | Conditions | Symbol | Values | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | |
| Forward Voltage Drop, Max | $T_j$ = 25℃, $I_F$ = 17.5A | $V_{FM}$ | - | - | 1.1 | V |
| Repetitive Peak Reverse Current, Max | $T_j$ = 25℃, $V_R$ = $V_{RRM}$ | $I_{RRM}$ | - | - | 5 | uA |
| | $T_j$ = 150℃, $V_R$ = $V_{RRM}$ | | - | - | 0.5 | mA |
| Threshold Voltage, for power loss calculation only | $T_j$ = 125℃ | $V_{T0}$ | 0.75 | | | V |
| Slope Resistance, for power loss calculation only | $T_j$ = 125℃ | $r_T$ | 5.5 | | | mΩ |

**Ratings and Characteristic Curves** ($T_A$=25℃ unless otherwise noted)

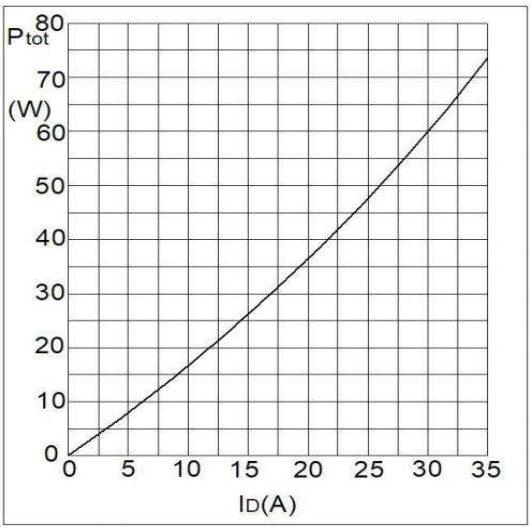



Fig1. Power Dissipation

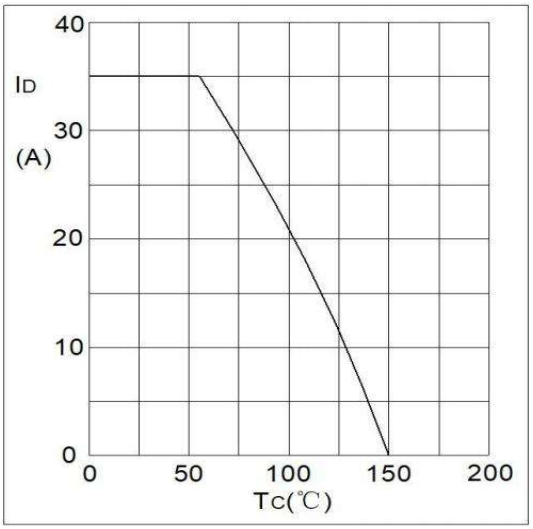



Fig2. Forward Current Derating Curve

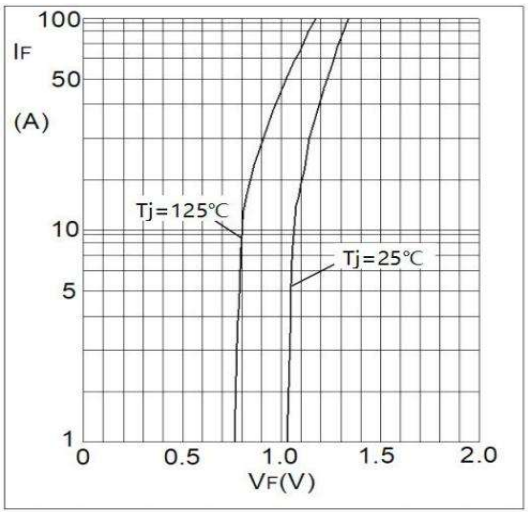



Fig3. Forward Characteristics

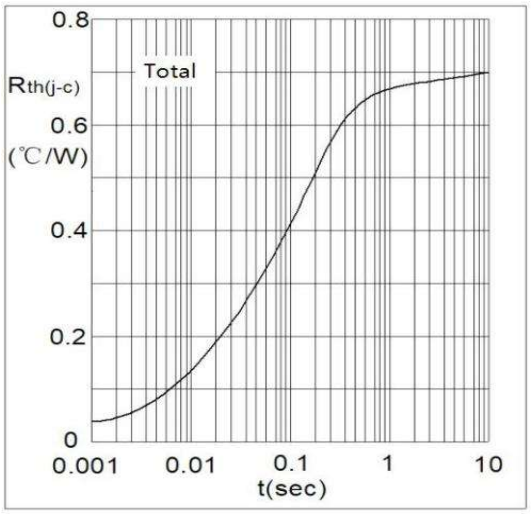



Fig4. Transient Thermal Impedance

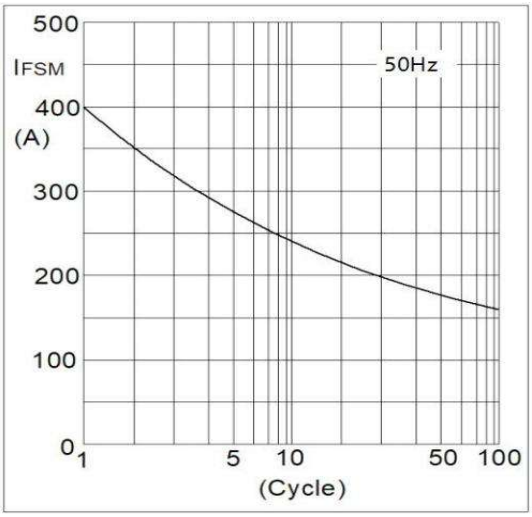
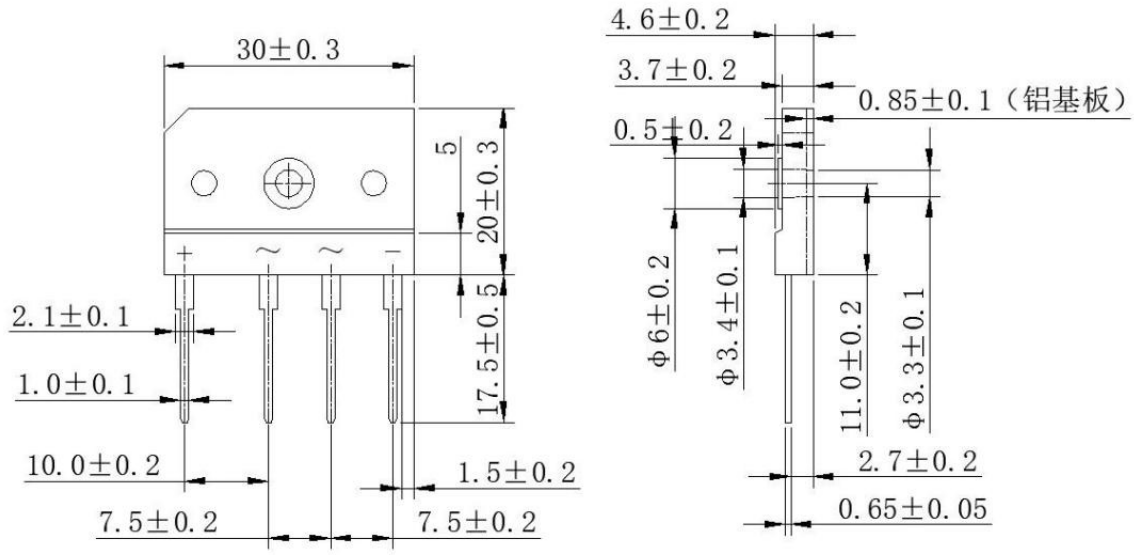



Fig5. Max Non-Repetitive Forward Surge Current

**Package Outlines** (Dimensions in mm)

Plastic surface mounted package(IGBJ)



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