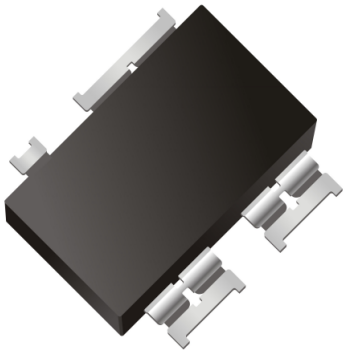
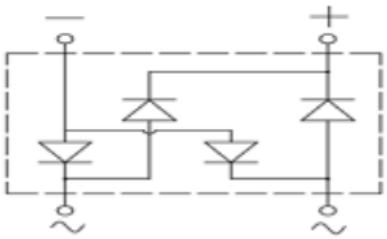
# JDBFC15B THRU JDBFC15M
## SURFACE MOUNT BRIDGE RECTIFIER





**FEATURES:**

- Reverse Voltage - 100 to 1000 V
- Forward Current - 15 A
- High Surge Current Capability
- Designed for Surface Mount Application

**MECHANICAL DATA**

- Case: JDBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 2.745g / 0.0968oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | JDBFC 15B | JDBFC 15D | JDBFC 15G | JDBFC 15J | JDBFC 15K | JDBFC 15M | Units |
|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Average Rectified Output Current | $I_O$ | 15 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC Method) | $I_{FSM}$ | 250 | | | | | | A |
| $I^2t$ Rating for Fusing t=8.3ms | $I^2t$ | 259 | | | | | | $A^2S$ |
| Maximum Forward Voltage Per Diode at 7.5 A | $V_F$ | 1.0 | | | | | | V |
| Maximum DC Reverse Current @$T_A$=25 °C<br>at Rated DC Blocking Voltage @$T_A$=125 °C | $I_R$ | 5<br>100 | | | | | | μA |
| Typical Junction Capacitance ( Note1 ) | $C_j$ | 75 | | | | | | pF |
| Typical Thermal Resistance ( Note2 ) | $R_{\theta JA}$<br>$R_{\theta JC}$<br>$R_{\theta JL}$ | 25<br>5<br>10 | | | | | | °C/W |
| Operating and Storage Temperature Range | $T_j$,$T_{stg}$ | -55 ~ +150 | | | | | | °C |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×3.81cm ×3.81cm copper pad.

**Fig.1 Average Rectified Output Current Derating Curve**

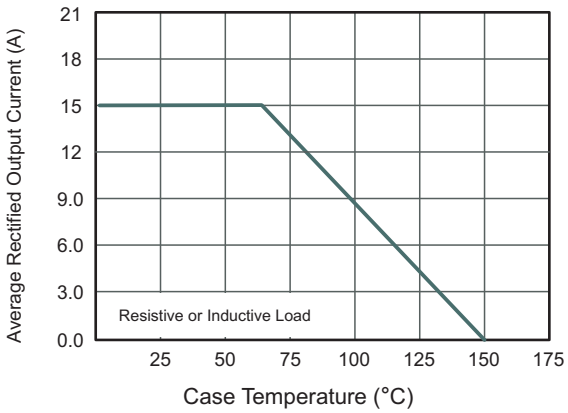



**Fig.2 Typical Reverse Characteristics**

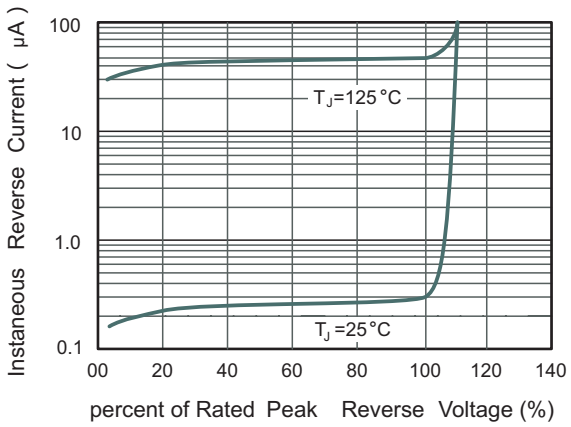



**Fig.3 Typical Instaneous Forward Characteristics**

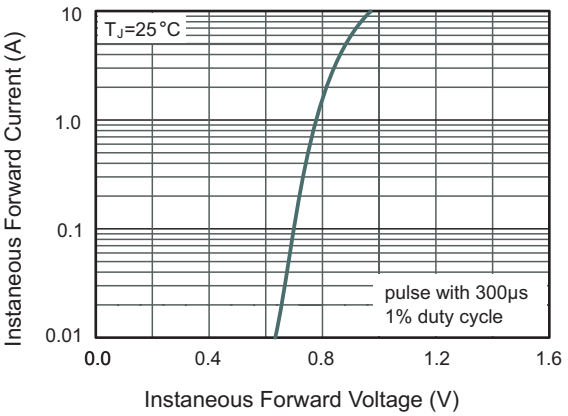



**Fig.4 Typical Junction Capacitance**

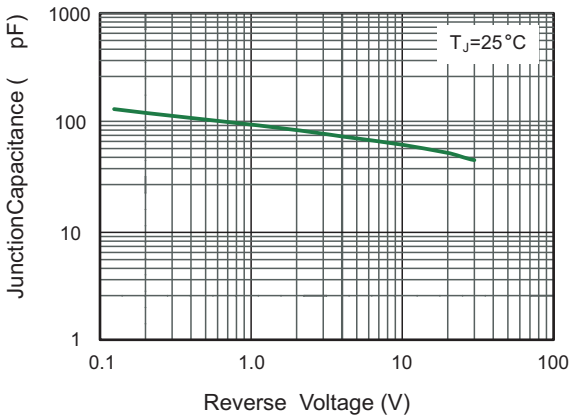
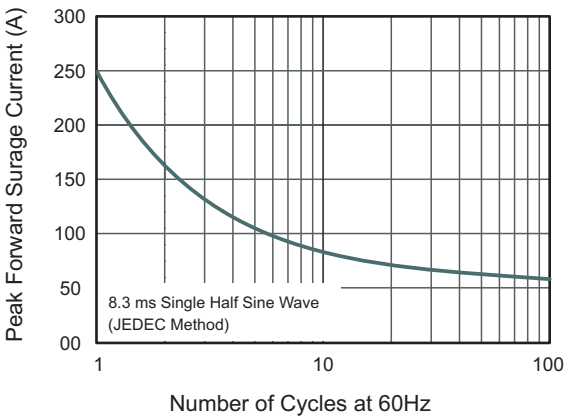


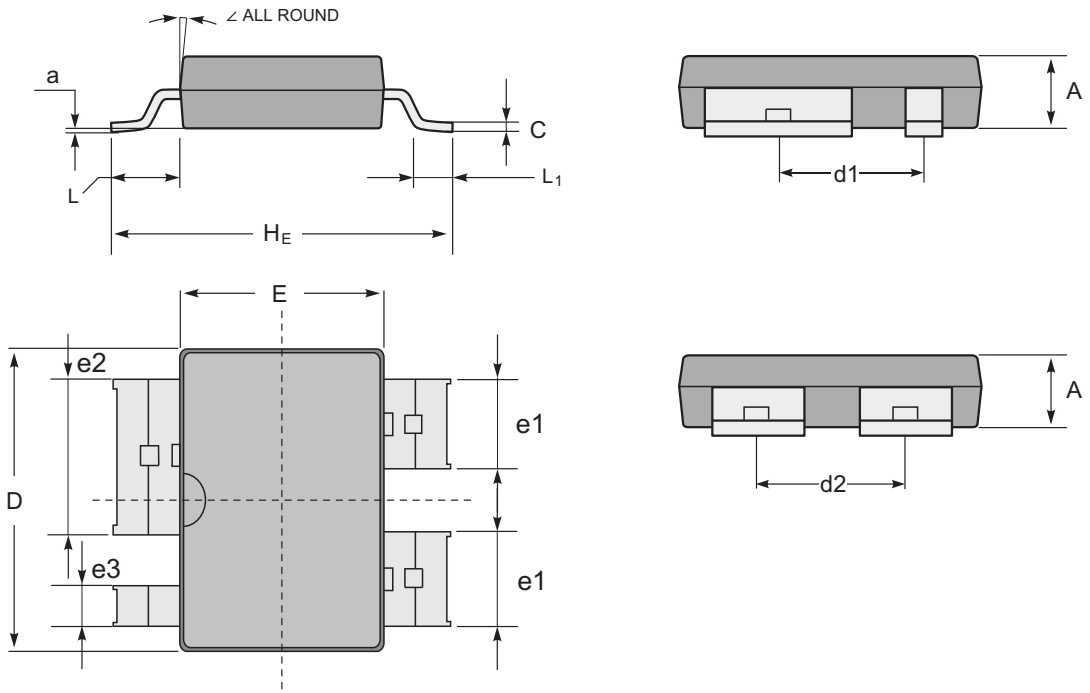

**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**



## PACKAGE OUTLINE

**Plastic surface mounted package; 4 leads**

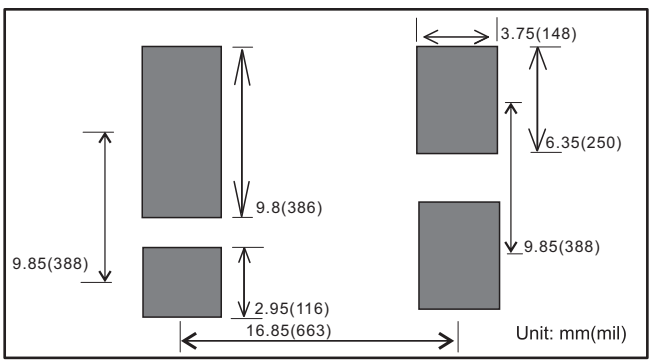
JDBF




Mechanical data

| Unit | | A | C | D | E | HE | e1 | e2 | e3 | d1 | d2 | L | L1 | a | ∠ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | max | 3.9 | 0.50 | 20.9 | 13.6 | 20.5 | 6.35 | 9.8 | 2.95 | 9.85 | | 3.85 | 2.72 | 0.19 (ref.) | 12° |
| | nom | 3.6 | 0.40 | 20.4 | 13.1 | 20.0 | 6.05 | 9.5 | 2.65 | 9.55 | | 3.45 | 2.32 | | |
| | min | 3.3 | 0.30 | 19.9 | 12.6 | 19.5 | 5.75 | 9.2 | 2.35 | 9.25 | | 3.05 | 1.92 | | |
| mil | max | 153.5 | 19.7 | 822.8 | 535.4 | 807.1 | 250.0 | 385.8 | 116.1 | 387.8 | | 151.6 | 107.1 | 7.5 (ref.) | |
| | nom | 141.7 | 15.8 | 803.1 | 515.7 | 787.4 | 238.2 | 374.0 | 104.3 | 376.0 | | 135.8 | 91.3 | | |
| | min | 129.9 | 11.8 | 783.5 | 496.1 | 767.7 | 226.4 | 362.2 | 92.5 | 364.2 | | 120.1 | 75.6 | | |

### The recommended mounting pad size




### Marking

| Type number | Marking code |
|---|---|
| JDBFC15B | JDBFC15B |
| JDBFC15D | JDBFC15D |
| JDBFC15G | JDBFC15G |
| JDBFC15J | JDBFC15J |
| JDBFC15K | JDBFC15K |
| JDBFC15M | JDBFC15M |