

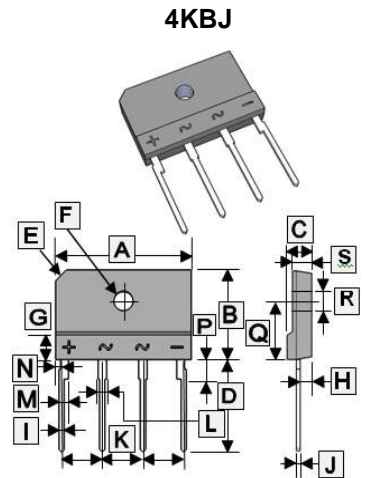
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- I_o : 10A
- V_{RRM} : 50~1000V
- Glass passivated chip
- High surge forward current capability

APPLICATIONS

- General purpose 1 phase Bridge rectifier applications



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 24.7 | 25.3 | J | 0.6 | 0.8 |
| B | 14.7 | 15.3 | K | 7.3 | 7.7 |
| C | 4.4 | 4.8 | L | 1.7 | 2.1 |
| D | 17.0 | 18.0 | M | 2.0 TYP. | |
| E | 3.0 x 45° | | N | 1.05 | 1.45 |
| F | 3.1 | 3.4 | P | 3.3 | 3.8 |
| G | 4.0 | | Q | 9.5 | 10.1 |
| H | 3.2 | 3.4 | R | 3.1 | 3.4 |
| I | 0.9 | 1.1 | S | 3.4 | 3.8 |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

| Parameter | Symbol | Part Number | | | | | | | | Unit |
|---|--|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--|-----------------------------|
| | | KBJ 10005 | KBJ 1001 | KBJ 1002 | KBJ 1004 | KBJ 1006 | KBJ 1008 | KBJ 1010 | | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | | V |
| Average Rectified Output Current @ 60Hz sine wave, R-load | With heatsink $T_C=80^\circ\text{C}$ | 10 | | | | | | | | A |
| | Without heatsink $T_A=25^\circ\text{C}$ | 3.6 | | | | | | | | |
| Surge (Nonrepetitive) Forward Current @ 60Hz sine wave, 1 cycle, $T_J=25^\circ\text{C}$ | I_{FSM} | 150 | | | | | | | | A |
| Current Squared Time ¹ | I^2t | 93 | | | | | | | | A ² S |
| Dielectric Strength @ Terminals to case , AC 1 minute | V_{DIS} | 2 | | | | | | | | KV |
| Mounting Torque @ Recommend torque : 5kg.cm | Tor | 8 | | | | | | | | Kg.cm |
| Peak Forward Voltage @ $I_{FM}=5\text{A}$, Pulse measurement, Rating of per diode | V_{FM} | 1.1 | | | | | | | | V |
| Peak Reverse Current @ $V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode | I_{RRM} | 10 | | | | | | | | μA |
| Thermal Resistance | Without heatsink | 25 | | | | | | | | $^\circ\text{C} / \text{W}$ |
| | With heatsink | 2.3 | | | | | | | | |
| Junction and Storage temperature range | T_J, T_{STG} | -55~+150 | | | | | | | | $^\circ\text{C}$ |

Notes :

1. $1\text{ms} \leq t < 8.3\text{ms}$ $T_J=25^\circ\text{C}$, Rating of per diode

RATINGS AND CHARACTERISTIC CURVES

FIG1: I_o-T_c Curve

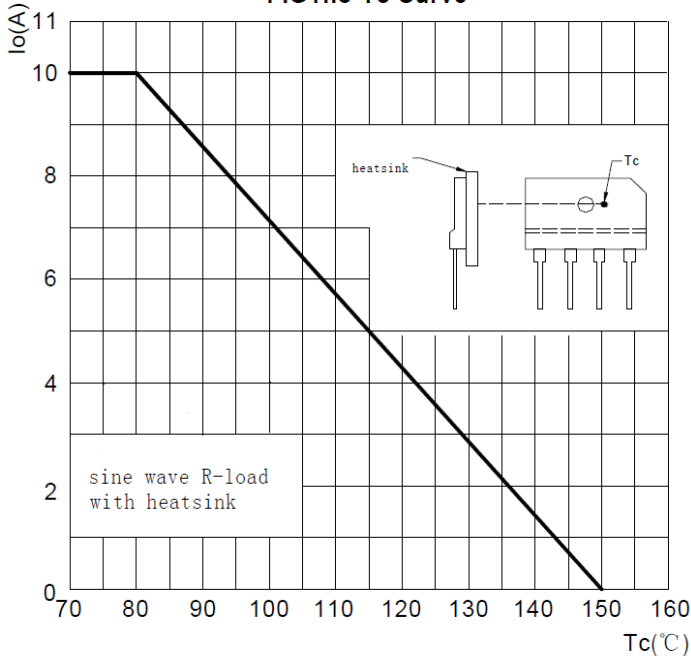


FIG2: Surge Forward Current Capability

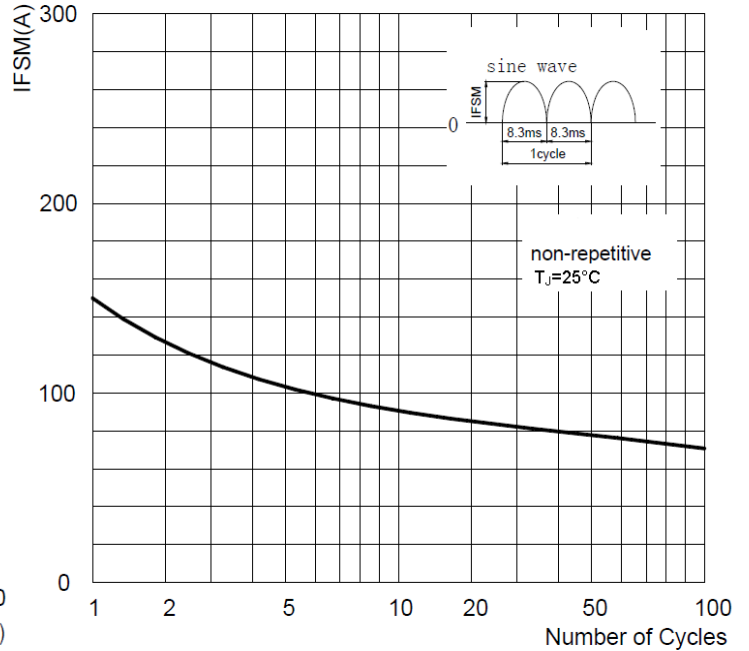


FIG3: Forward Voltage

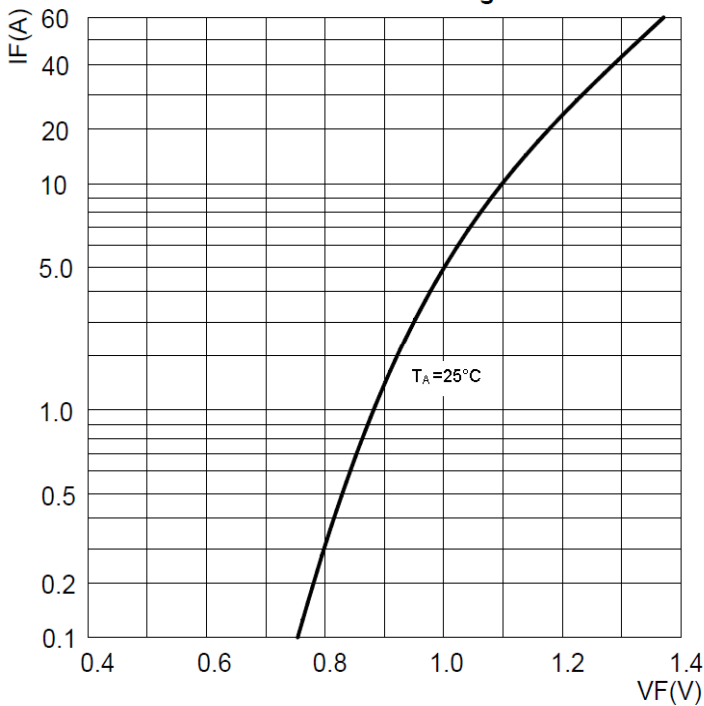


FIG4: Typical Reverse Characteristics

