# FE6A THRU FE6D

## SINTERED GLASS JUNCTION
## FAST EFFICIENT RECTIFIER

**VOLTAGE：50V to 200V** **CURRENT: 6.0A**

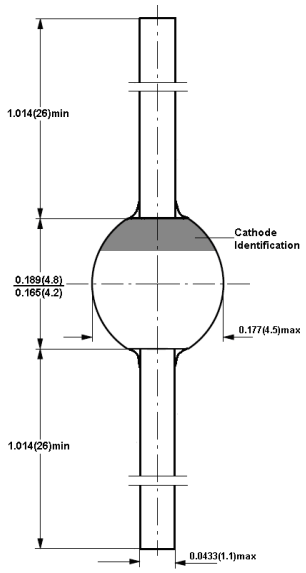
## FEATURE

High temperature metallurgically bonded construction
Glass passivated cavity-free junction
Superfast recovery time-for hige efficiency
Low forward voltage, high current capability
Hermetically sealed package
Low leakage current
High surge current capability

## MECHANICAL DATA

Case: G-4 sintered glass case
Terminal: Plated axial leads solderable per J-STD-002
Polarity: color band denotes cathode end
Mounting position: any

**G-4**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | FE6A | FE6B | FE6C | FE6D | units |
|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 105 | 140 | V |
| Maximum DC blocking Voltage | $V_{DC}$ | 50 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at TL=55℃ | $I_{FAV}$ | 6.0 | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 135 | | | | A |
| Maximum Forward Voltage at Forward Current 6A and 25℃ | $V_F$ | 0.975 | | | | V |
| Maximum DC Reverse Current Ta =25℃<br>at rated DC blocking voltage Ta =100℃ | $I_R$ | 5.0<br>50.0 | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 35 | | | | nS |
| Typical junction capacitance (Note 2) | Cj | 100 | | | | pF |
| Typical Thermal Resistance (Note 3,4) | Rth(ja)<br>Rth(jl) | 55.0<br>18.0 | | | | ℃ /W |
| Storage and Operating Junction Temperature | Tstg, Tj | -65 to +175 | | | | ℃ |

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0V
3. Thermal resistance from junction to lead at 0.375"(9.5mm) lead length with both leads attached to heatsinks
4. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length and mounted on P.C.B.

## RATINGS AND CHARACTERISTIC CURVES FE6A THRU FE6D

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

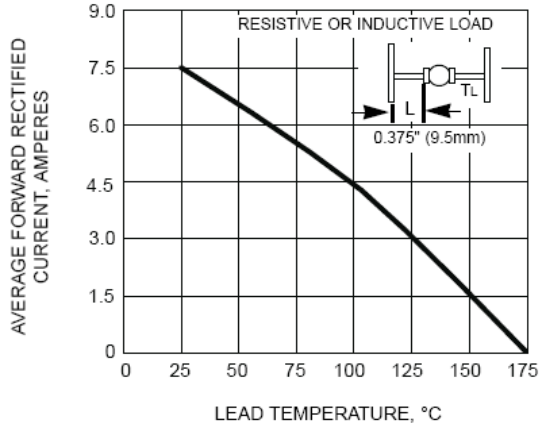



FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

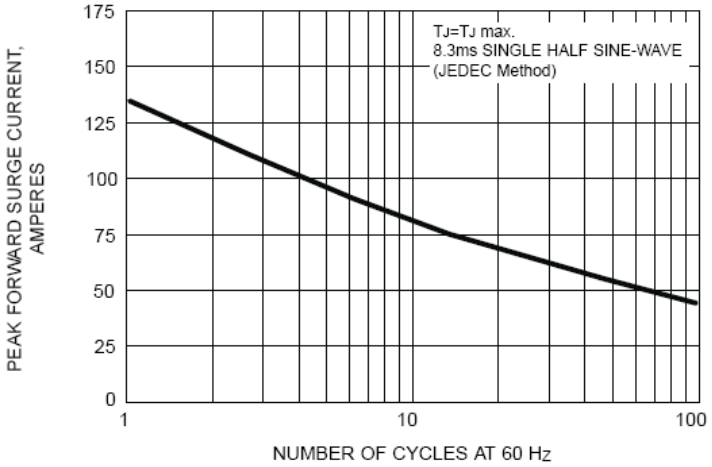



FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

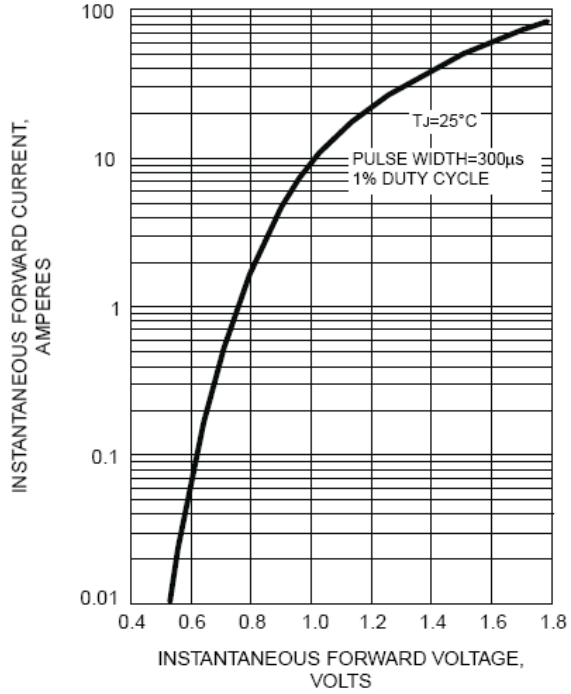



FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

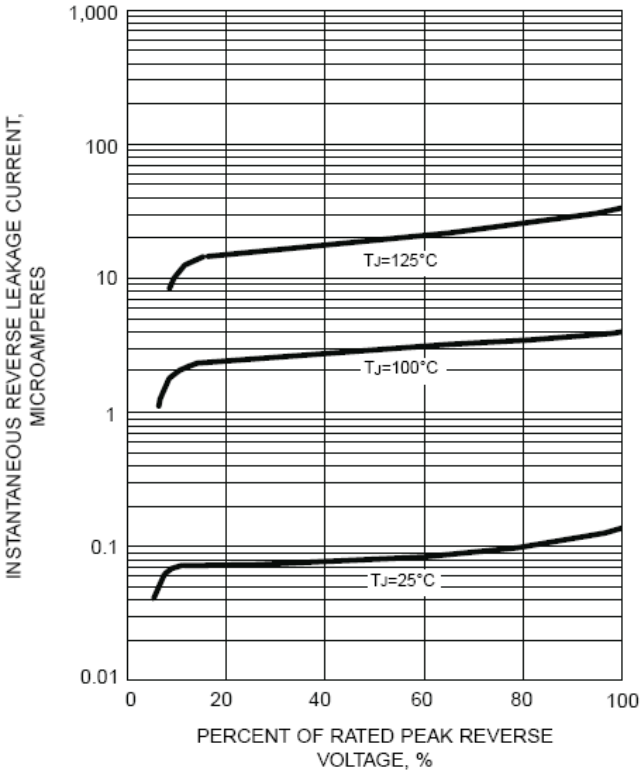



FIG. 5 - TYPICAL JUNCTION CAPACITANCE