



IFE80-06

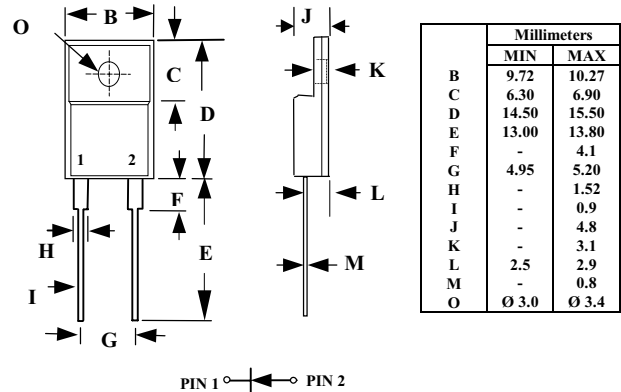
8A FAST EFFICIENT RECTIFIER

FEATURES

- 1 Low power loss, high efficiency
- 1 Low forward voltage drop
- 1 High current capability
- 1 High speed switching
- 1 High reliability
- 1 High current surge
- 1 Glass passivated chip junction
- 1 Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- 1 Case : JEDEC ITO-220 molded plastic.
- 1 Lead : Solderable per MIL-STD-202, method 208
- 1 Mounting position : Any
- 1 Weight : 1.81 grams



CASE: ITO-220

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, derate current by 20%

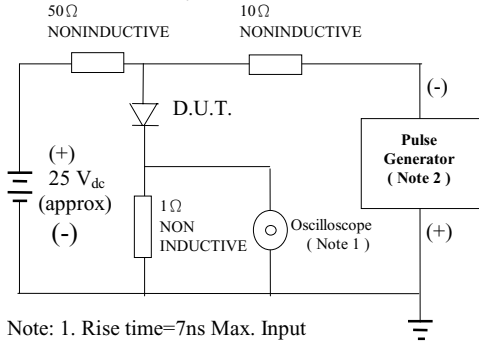
| CHARACTERISTICS | SYMBOL | IFE80-06 | UNITS |
|--|-----------|---------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 600 | V |
| Maximum Average Forward Rectified Current | I_O | 8.0 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I_{FSM} | 150 | A |
| Typical Junction Capacitance (Note 1) | C_J | 60 | pF |
| Typical Thermal Resistance (Note 2) | R_{OJA} | 2.2 | °C/W |
| Operating Temperature Range | T_{OP} | - 55 TO + 150 | °C |
| Storage Temperature Range | T_{STG} | -55 TO + 150 | °C |
| Maximum Forward Voltage at I_O DC | V_F | 1.85 | V |
| Maximum Reverse Current at $T_A = 25^\circ\text{C}$ | I_R | 10 | µA |
| Maximum Reverse Current at $T_A = 100^\circ\text{C}$ | I_R | 100 | µA |
| Maximum Reverse Recovery Time (Note 3) | T_{RR} | 25 | nS |

NOTE :

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Both leads attached to heat sink 20×20×1t(mm) copper plate at lead length 5mm
3. Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

RATINGS AND CHARACTERISTIC CURVE IFE80-06

Fig. 1 -Test Circuit Diagram And Reverse Recovery Time Characteristic



Note: 1. Rise time=7ns Max. Input Impedance=1 Meg-ohm 22pF
 2. Rise Time =10 ns Max. Source Impedance=50 ohms

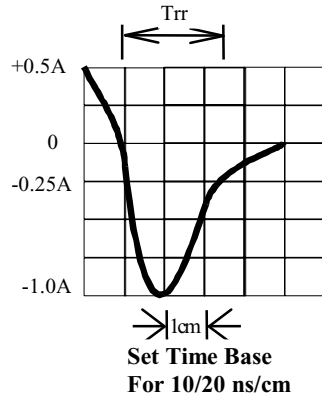


Fig. 2 -Maximum Forward Current Derating Curve

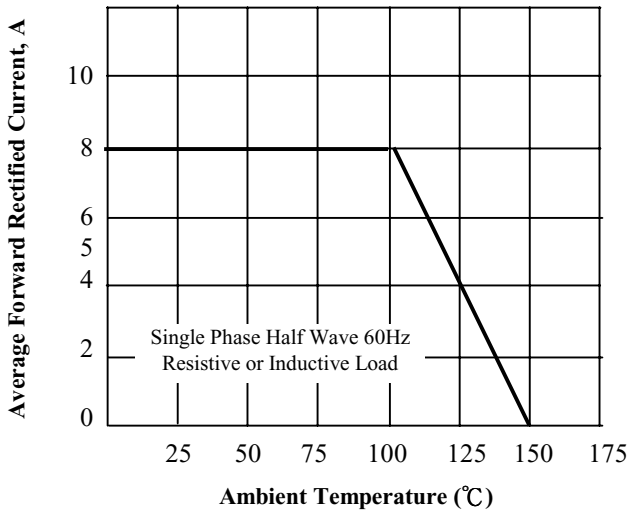


Fig. 3 -Typical Instantaneous Forward Characteristics

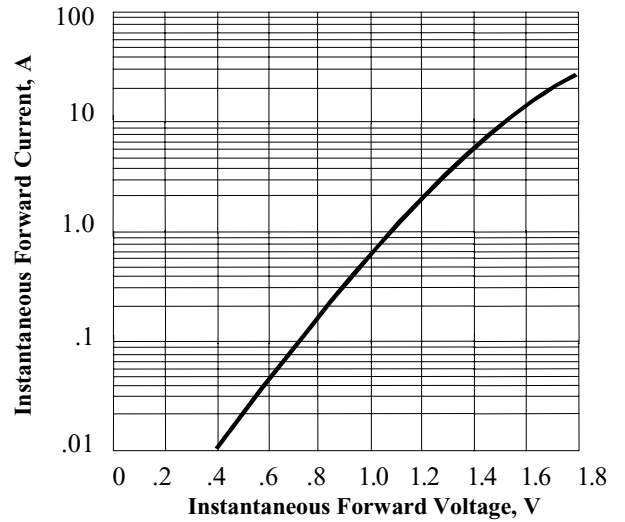


Fig. 4 -Typical Reverse Characteristics

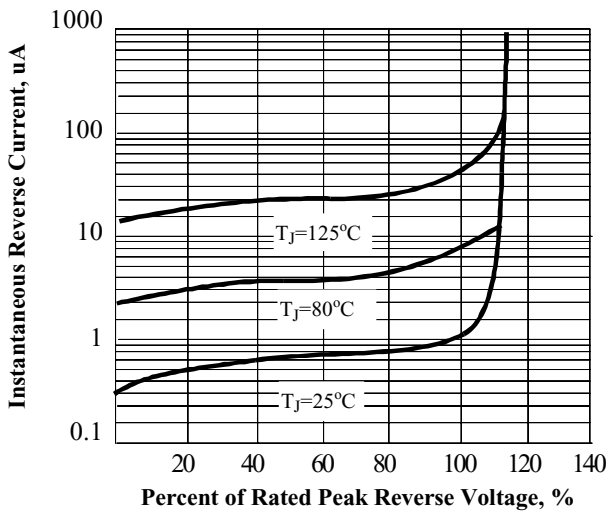


Fig. 5 -Typical Junction Capacitance

