



IFE80-06

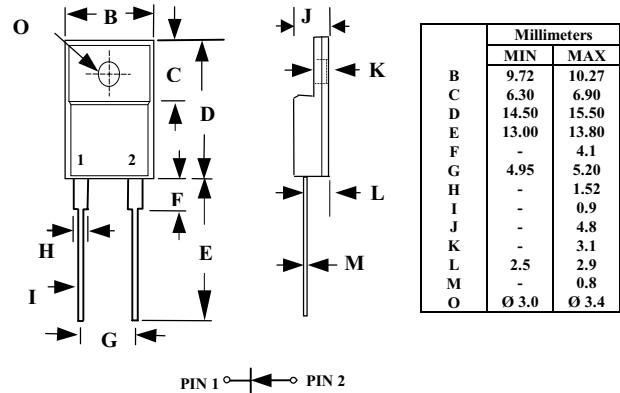
8A FAST EFFICIENT RECTIFIER

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%

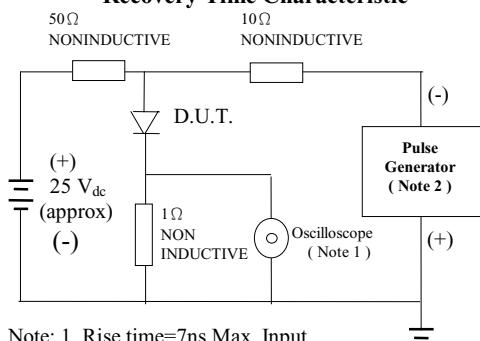
CHARACTERISTICS	SYMBOL	IFE80-06	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	600	V
Maximum RMS Voltage	V _{RMS}	420	V
Maximum DC Blocking Voltage	V _{DC}	600	V
Maximum Average Forward Rectified Current	I _O	8.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	150	A
Typical Junction Capacitance (Note 1)	C _J	60	pF
Typical Thermal Resistance (Note 2)	R _{θJA}	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°C	I _R	10	μA
Maximum Reverse Current at T _A = 100°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 20x20x1t(mm) copper plate at lead length 5mm
3. Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

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

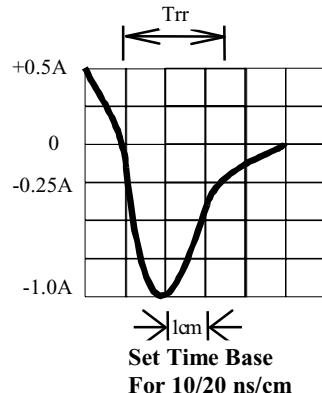
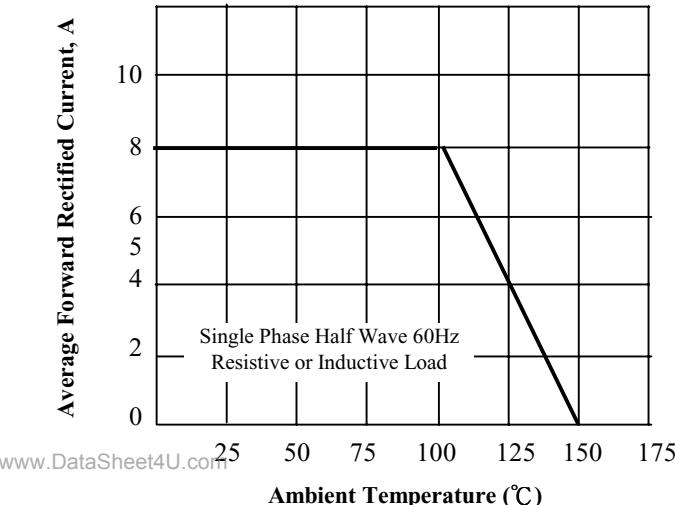


Fig. 2 -Maximum Forward Current Derating Curve



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Fig. 3 -Typical Instantaneous Forward Characteristics

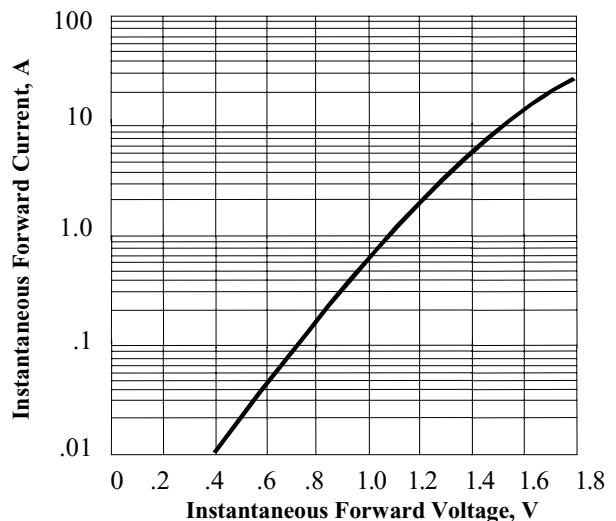


Fig. 4 -Typical Reverse Characteristics

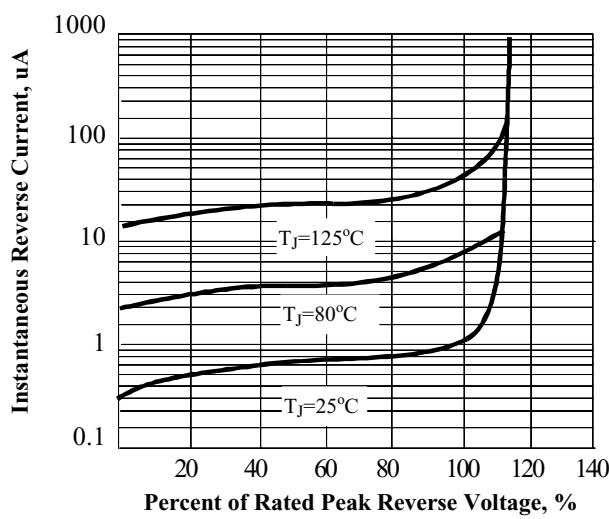


Fig. 5 -Typical Junction Capacitance

