FULL POWER
SEMICONDUCTOR

IFE50-005 THRU IFE50-06

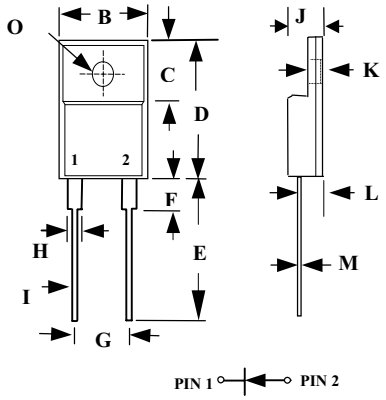
5A FAST EFFICIENT RECTIFIER

FEATURES

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

MECHANICAL DATA

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



	Millimeters	
	MIN	MAX
B	9.72	10.27
C	6.30	6.90
D	14.50	15.50
E	13.00	13.80
F	-	4.1
G	4.95	5.20
H	-	1.52
I	-	0.9
J	-	4.8
K	-	3.1
L	2.5	2.9
M	-	0.8
O	Ø 3.0	Ø 3.4

CASE: ITO-220

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified
single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

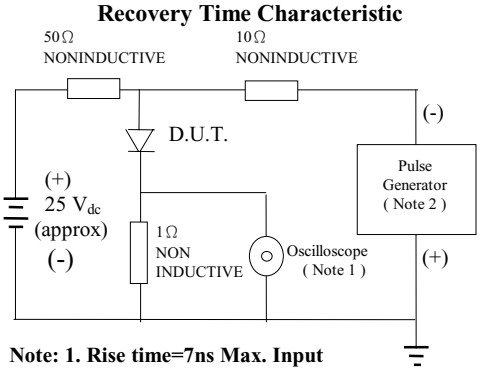
CHARACTERISTICS	SYMBOL	IFE50 -005	IFE50 -01	IFE50 -02	IFE50 -03	IFE50 -04	IFE50 -05	IFE50 -06	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	500	600	V
Maximum Average Forward Rectified Current	I_O	5.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	125							A
Typical Junction Capacitance (Note 1)	C_J	85					50		pF
Typical Thermal Resistance (Note 2)	R_{OJA}	2.2							℃/W
Operating Temperature Range	T_{OP}	- 55 TO + 150							℃
Storage Temperature Range	T_{STG}	-55 TO + 150							℃
Maximum Forward Voltage at I_O DC	V_F	0.98			1.25		1.85		V
Maximum Reverse Current at T_A = 25℃	I_R	10							μA
Maximum Reverse Current at T_A = 100℃	I_R	100							μA
Maximum Reverse Recovery Time (Note 3)	T_{RR}	25							nS

NOTE：

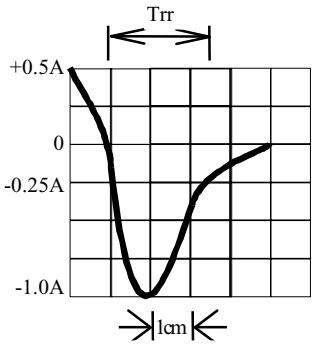
1. Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Both leads attached to heat sink 20×20×1t(mm) copper plate at lead length 5mm
3. Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVE IFE50-005 THRU IFE50-06

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



Set Time Base For 10/20 ns/cm

Fig. 2 -Maximum Forward Current Derating Curve

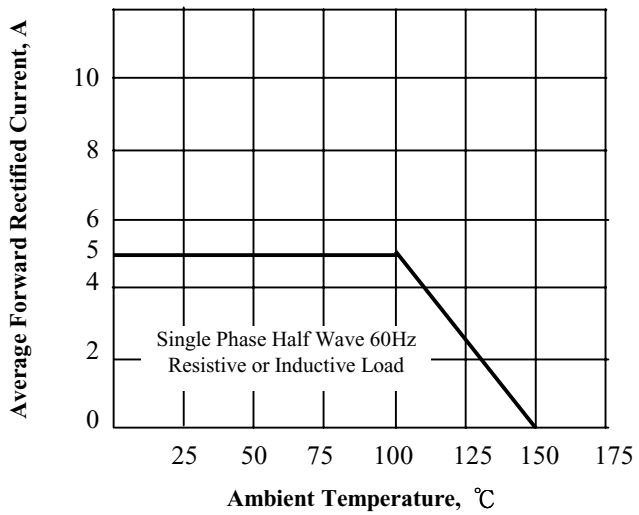


Fig. 3 -Typical Instantaneous Forward Characteristics

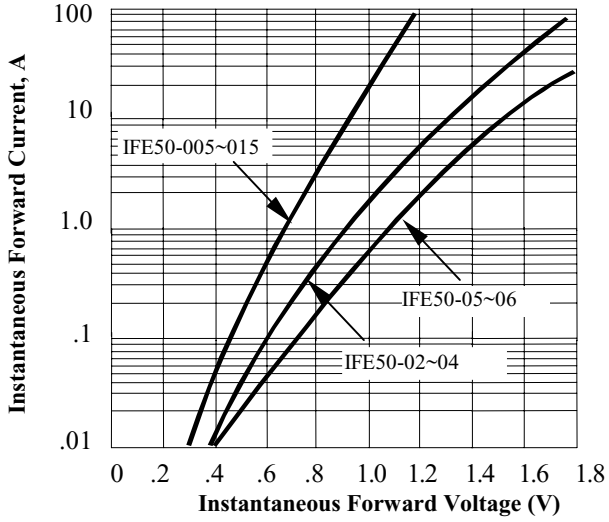


Fig. 4 -Typical Reverse Characteristics

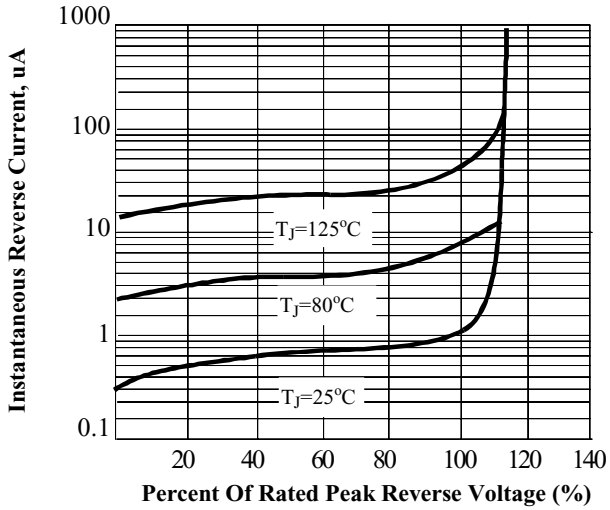


Fig. 5 -Typical Junction Capacitance

