

■ **FEATURES**

- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

■ **TYPICAL APPLICATIONS**

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

■ **MECHANICAL DATA**

- **Package:** ITO-220AC
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■ **MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR860F
Device marking code			MUR860F
Repetitive Peak Reverse Voltage	V_{RRM}	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T_c (FIG.1)	I_o	A	8
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_j=25^{\circ}\text{C}$	I_{FSM}	A	100
Current Squared Time @1ms $\leq t \leq$ 8.3ms $T_j=25^{\circ}\text{C}$,	I^2t	A ² s	41
Storage Temperature	T_{slg}	$^{\circ}\text{C}$	-55 ~ +175
Junction Temperature	T_j	$^{\circ}\text{C}$	-55 ~ +175
Typical Junction capacitance @4V,1MHz	C_j	pF	40
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8

■ **THERMAL CHARACTERISTICS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR860F	
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}\text{C}/\text{W}$	4.0
	Between junction and Air	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	50

■ **PACKAGING INFORMATION**

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR860F	Approximate 1.6	50	1000	5000	Tube

ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =8.0A @T _j =25°C	-	1.40	1.6
			I _{FM} =8.0A @T _j =150°C	-	1.15	1.3
DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _j =25°C	-	-	5.0
	I _{RRM2}		V _{RM} =V _{RRM} T _j =150°C	-	40	200
Reverse Recovery Time	T _{RR}	ns	I _F =0.5A I _{RM} =1A I _{RR} =0.25A T _j =25°C	-	25	35
			T _j =25°C	-	60	-
			T _j =125°C	-	300	-
Peak recovery current	I _{RRM}	A	T _j =25°C	-	3.4	-
			T _j =125°C	-	6.4	-
Reverse recovery charge	Q _{rr}	nC	T _j =25°C	-	100	-
			T _j =125°C	-	300	-

CHARACTERISTICS (TYPICAL)

FIG1: I_o -T_c Curve

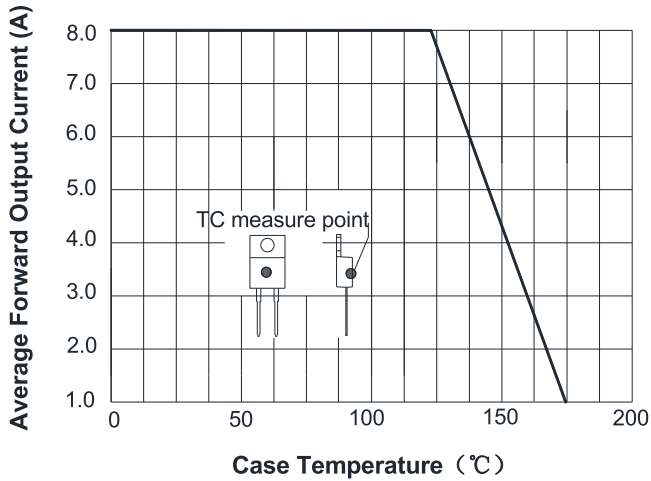


FIG2: Surge Forward Current Capability

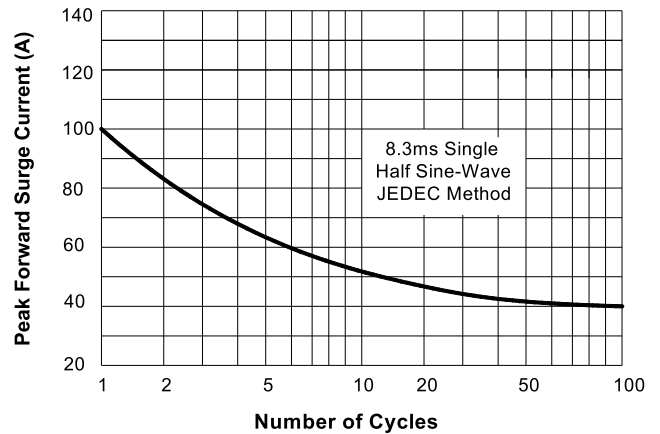


FIG3: Forward Voltage

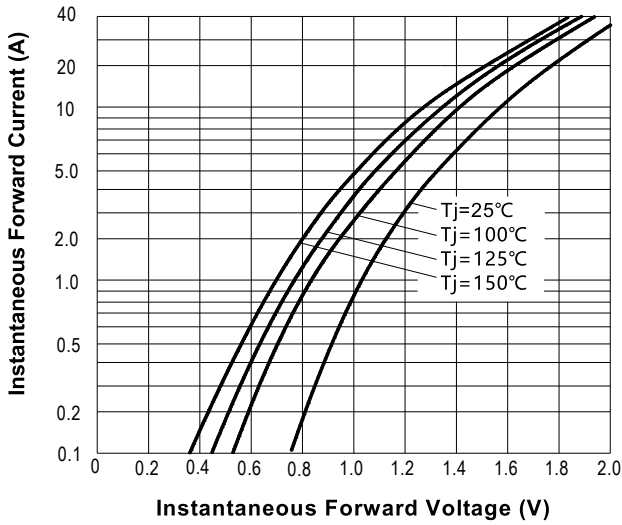


FIG.4: Instantaneous Reverse Characteristics

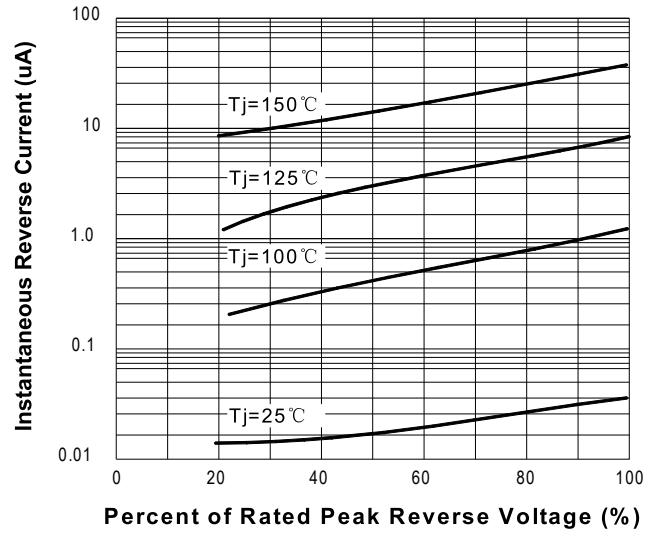
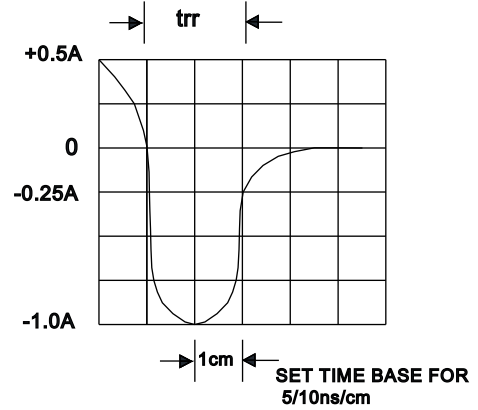
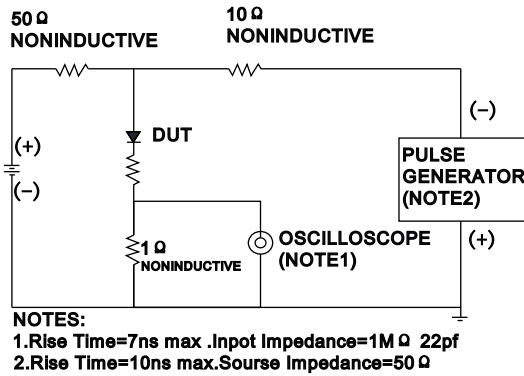
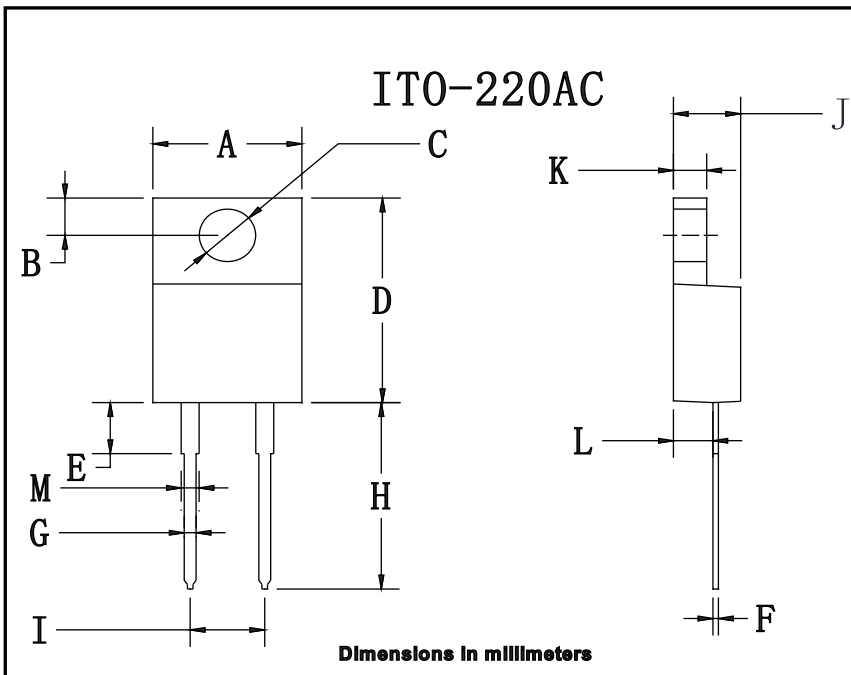


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ **OUTLINE DIMENSIONS**



ITO-220AC		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.5	4.1
F	0.45	0.75
G	0.45	0.75
H	13.35	14.15
I	4.97	5.23
J	4.3	4.8
K	2.5	2.74
L	2.58	2.82
M	1.03	1.43