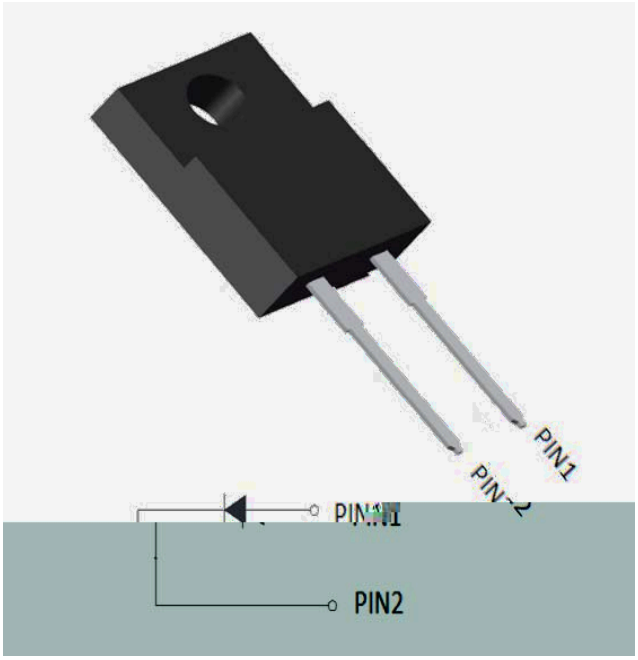
Ultra-Fast Recovery Rectifier Diodes



Features

- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MUR810F	MUR815F	MUR820F	MUR840F	MUR860F
Device marking code			MUR810F	MUR815F	MUR820F	MUR840F	MUR860F
Repetitive Peak Reverse Voltage	V_{RRM}	V	100	150	200	400	600
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc(FIG.1)	I_o	A	8				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25	I_{FSM}	A	100				
Current Squared Time @1ms≤t≤8.3ms Tj=25	I^2t	A^2s.	41				
Storage Temperature	T_{stg}		-55 ~ +150				
Junction Temperature	T_j		-55 ~ +150				

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR810F	MUR815F	MUR820F	MUR840F	MUR860F
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=8.0A	0.975			1.3	1.5
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ T_a=25	10				
	I_{RRM2}		$V_{RM}=V_{RRM}$ T_a=125	500				
Reverse Recovery Time	Trr	ns	I_F=0.5A I_{RM}=1A I_{RR}=0.25A	50				

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MUR810F	MUR815F	MUR820F	MUR840F	MUR860F
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	/W	2.5				

■Ordering Information (Example)

PREFERED P/N					UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR810F	MUR815F	MUR820F	MUR840F	MUR860F	Approximate 1.37	50	1000	5000	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

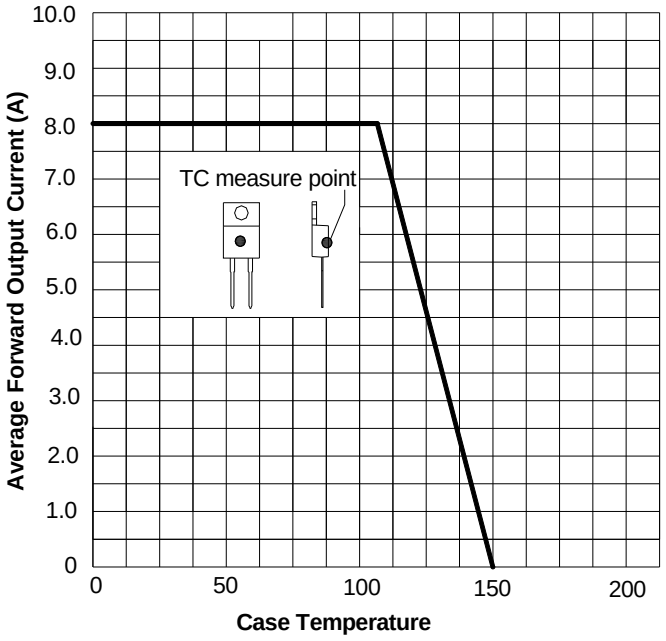


FIG2:Surge Forward Current Capability

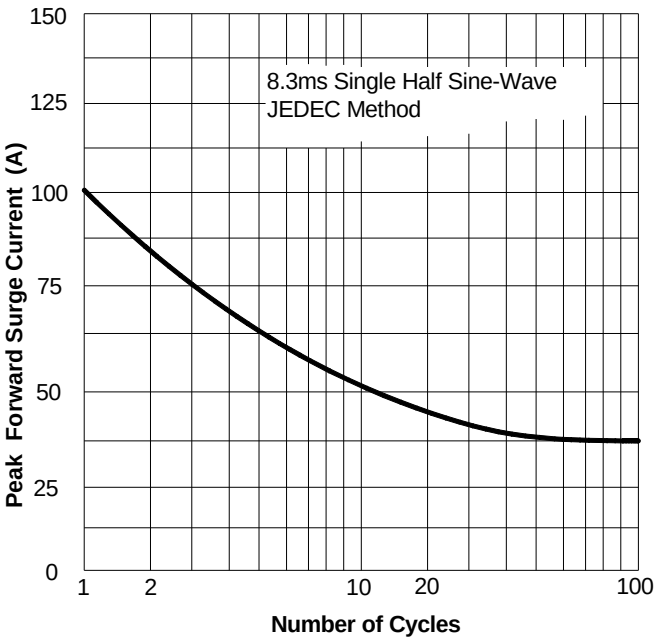


FIG3: Forward Voltage

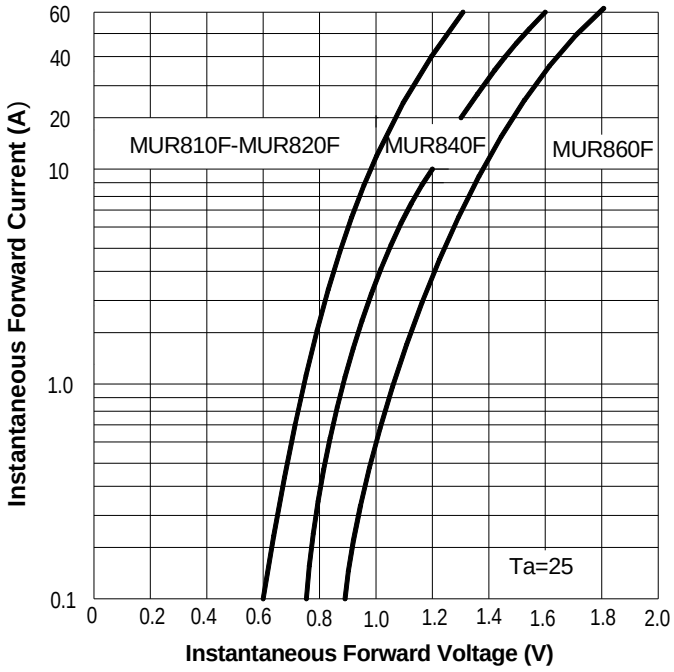


FIG4: Typical Reverse Characteristics

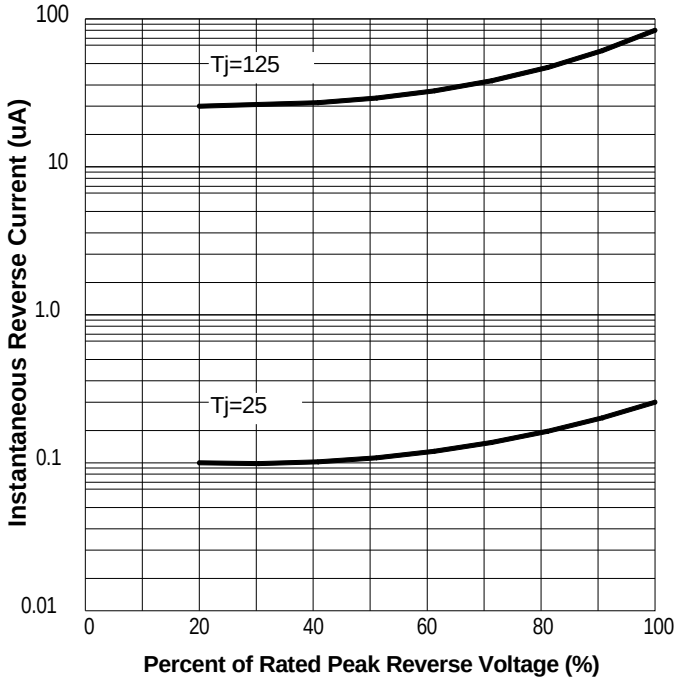
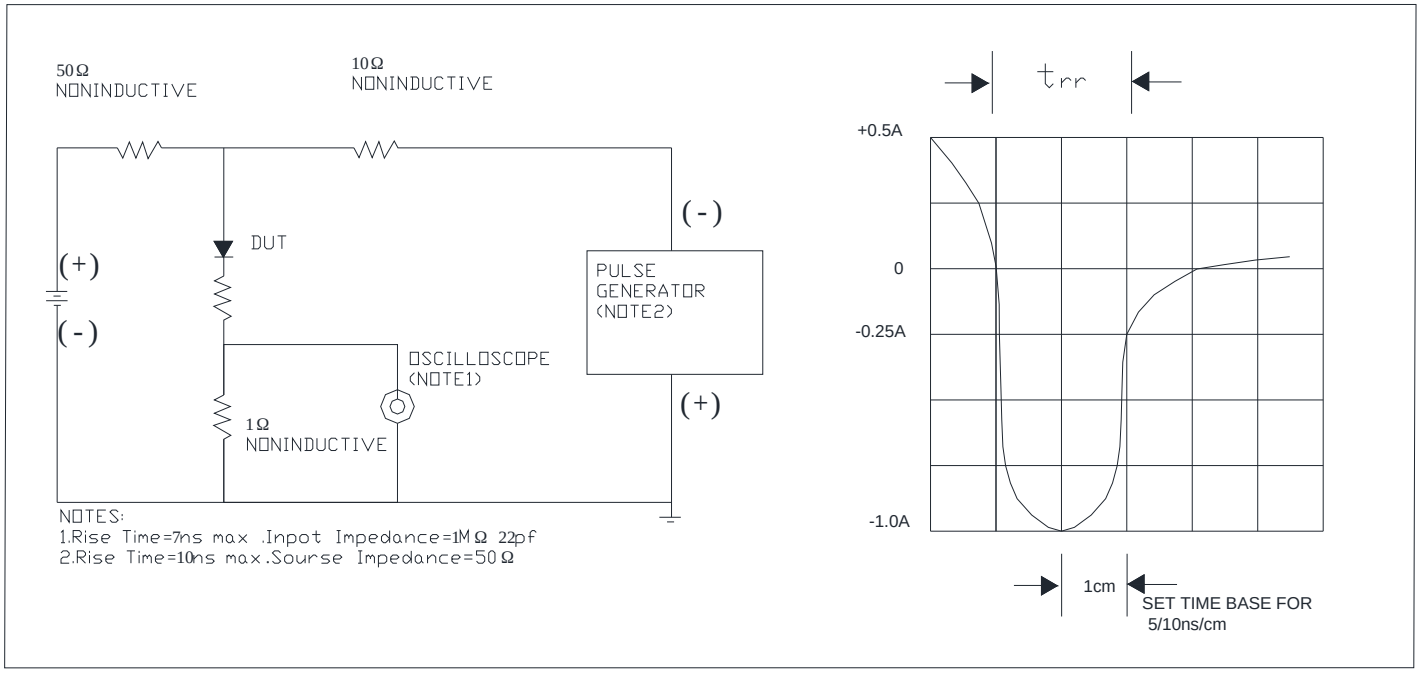
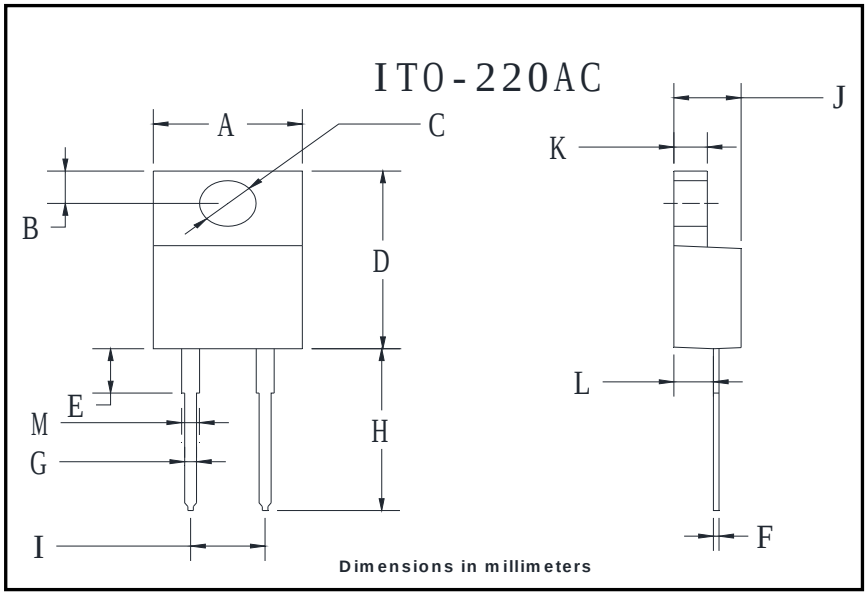


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



■Outline Dimensions



ITO-220AC		
Dim	Min	Max
A	9.7	10.7
B	2.15	3.25
C	2.6	3.8
D	14.4	15.9
E	3.1	4.5
F	0.4	0.8
G	0.4	0.9
H	12.7	14.2
I	3.6	5.9
J	3.9	5.1
K	2.1	3.56
L	2.1	3.2
M	1.0	1.8

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