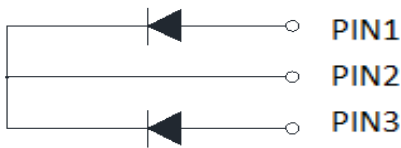
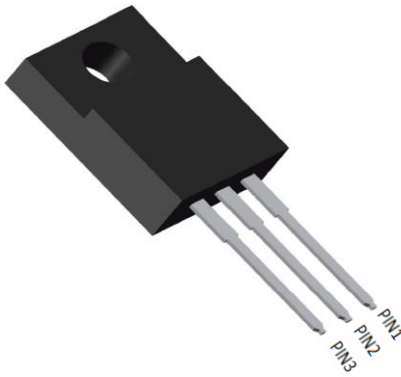


Ultra-Fast Recovery Rectifier Diodes



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-220AB
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	MUR1020FCT
Device marking code			MUR1020FCT
Repetitive Peak Reverse Voltage	VRRM	V	200
Average Rectified Output Current @60Hz half sine-wave, R-load, T_c (FIG.1)	I_o	A	10
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_a=25^\circ\text{C}$	IFSM	A	75
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A^2s	23
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +150
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~ +150

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR1020FCT
Maximum instantaneous forward voltage drop per diode	VFM	V	$I_{\text{FM}}=5.0\text{A}$	0.98
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	$V_{\text{RM}}=V_{\text{RRM}}$ $T_a=25^\circ\text{C}$	10
	I _{RRM2}		$V_{\text{RM}}=V_{\text{RRM}}$ $T_a=125^\circ\text{C}$	500
Reverse Recovery Time	T_{rr}	ns	$I_{\text{F}}=0.5\text{A}$ $I_{\text{RM}}=1\text{A}$ $I_{\text{RR}}=0.25\text{A}$	50

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR1020FCT
Thermal Resistance Between junction and case	$R_{\theta\text{J-C}}$	$^\circ\text{C/W}$	2.5



MUR1020FCT

Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR1020FCT	Approximate 1.46	50	1000	5000	Tube

Characteristics (Typical)

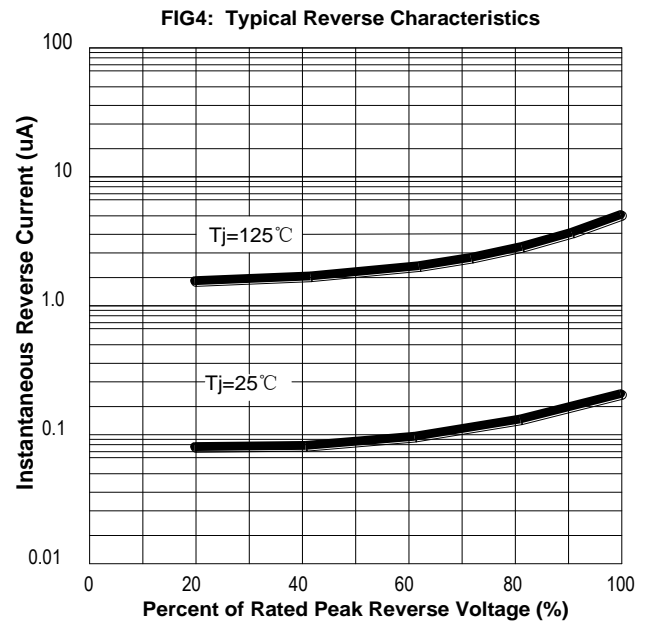
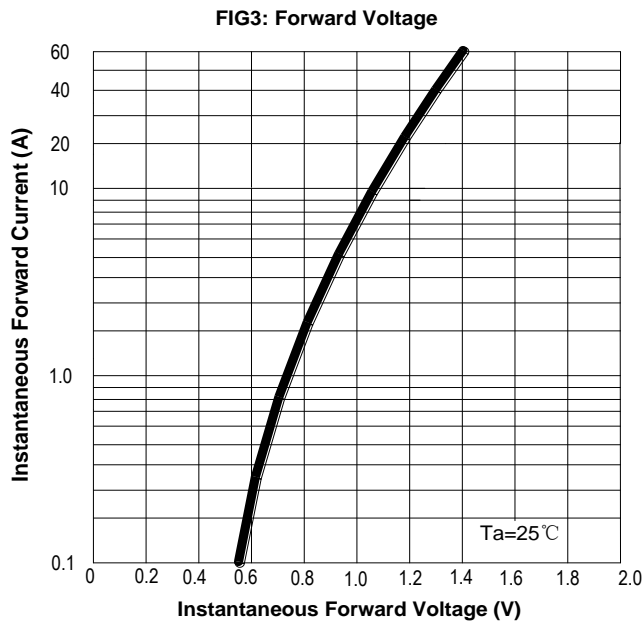
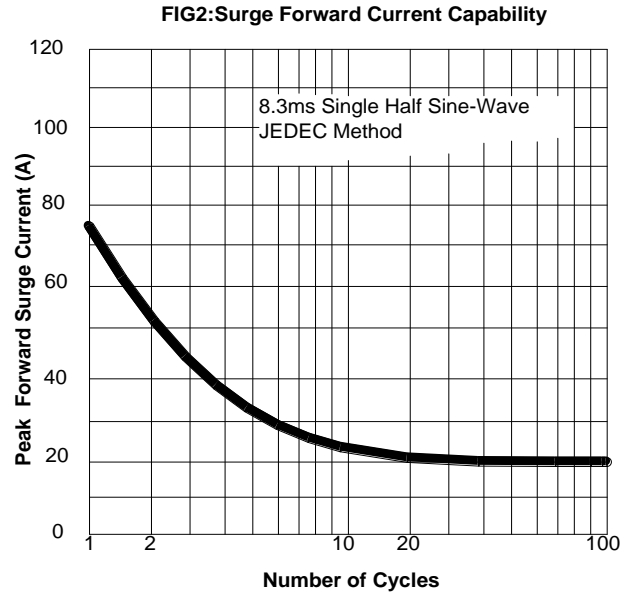
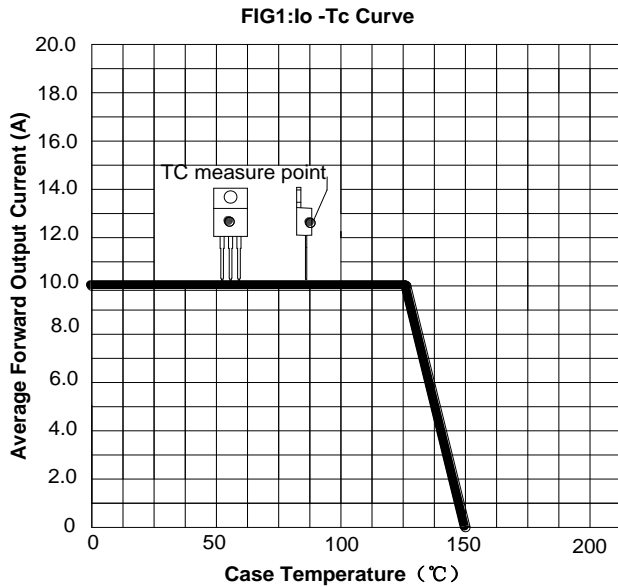
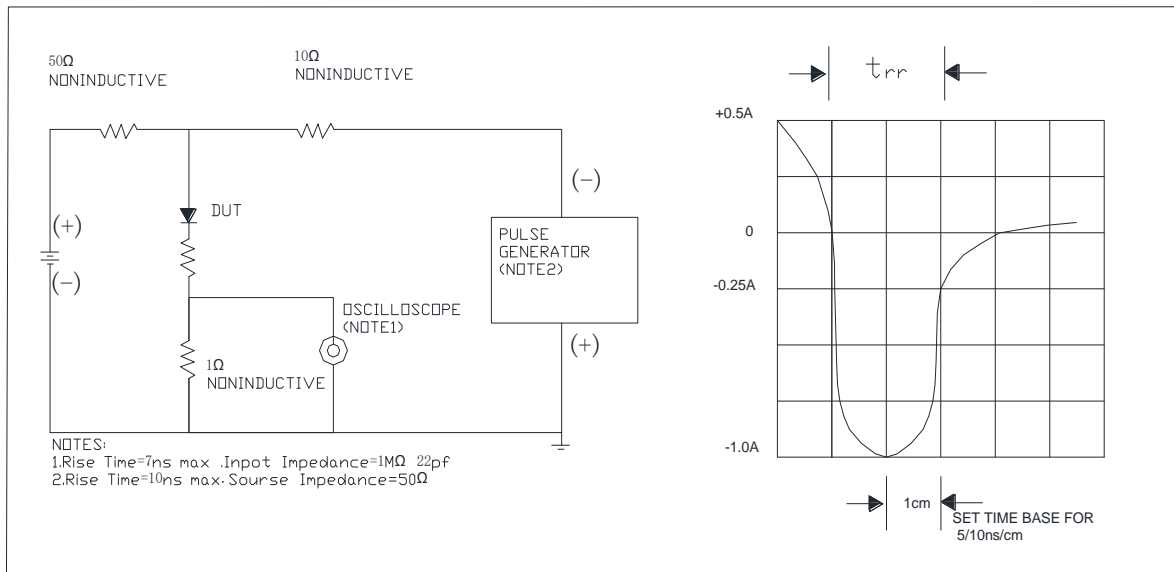
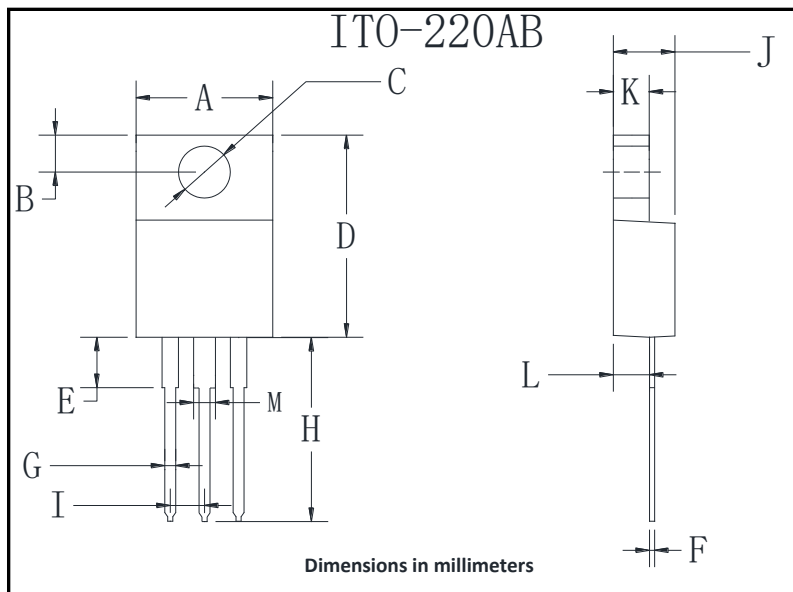


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



Outline Dimensions



ITO-220AB		
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	0.8
H	12.7	14.2
I	1.80	2.95
J	3.9	5.1
K	2.1	3.56
L	2.1	3.2
M	1.4	1.8



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