

### ■ 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR2040FCT	MUR2060FCT
Device marking code			MUR2040FCT	MUR2060FCT
Repetitive Peak Reverse Voltage	VRRM	V	400	600
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc(FIG.1)	Io	A	20	
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	IFSM	A	125	
Current Squared Time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	65	
Storage Temperature	Tstg	°C	-55 ~ +150	
Junction Temperature	Tj	°C	-55 ~ +150	

### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR2040FCT	MUR2060FCT
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=10.0A	1.3	1.5
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	uA	V <sub>RM</sub> =V <sub>RRM</sub> Ta=25°C	10	
	I <sub>RRM2</sub>		V <sub>RM</sub> =V <sub>RRM</sub> Ta=125°C	500	
Reverse Recovery Time	T <sub>rr</sub>	ns	IF=0.5A I <sub>RM</sub> =1A I <sub>RR</sub> =0.25A	50	

### ■ THERMAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR2040FCT	MUR2060FCT
Thermal Resistance Between junction and case	R <sub>θJ-C</sub>	°C/W	2.5	

### ■ PACKAGING INFORMATION

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE	
MUR2040FCT	MUR2060FCT	Approximate 1.49	50	1000	5000	Tube

■ **CHARACTERISTICS (TYPICAL)**

FIG1:  $I_o$  -Tc Curve

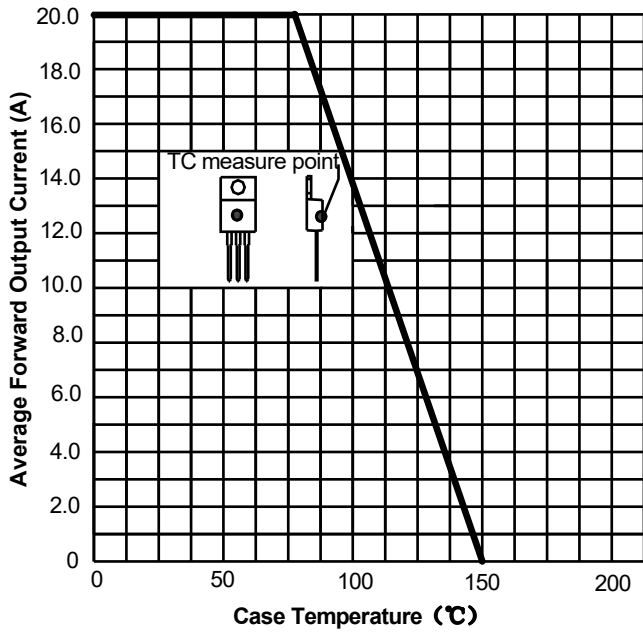


FIG2: Surge Forward Current Capability

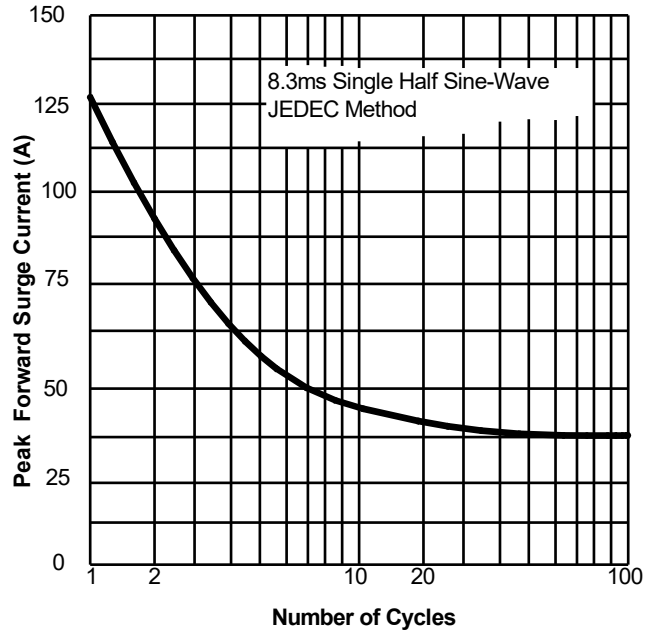


FIG3: Forward Voltage

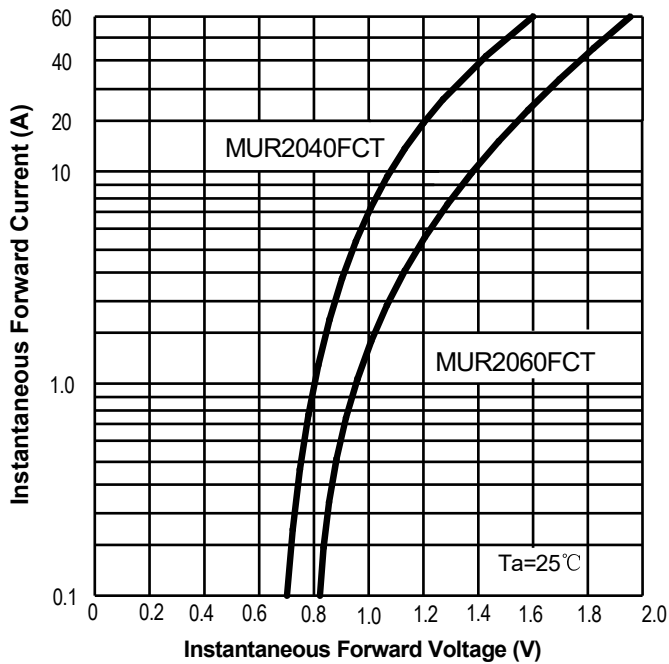


FIG4: Typical Reverse Characteristics

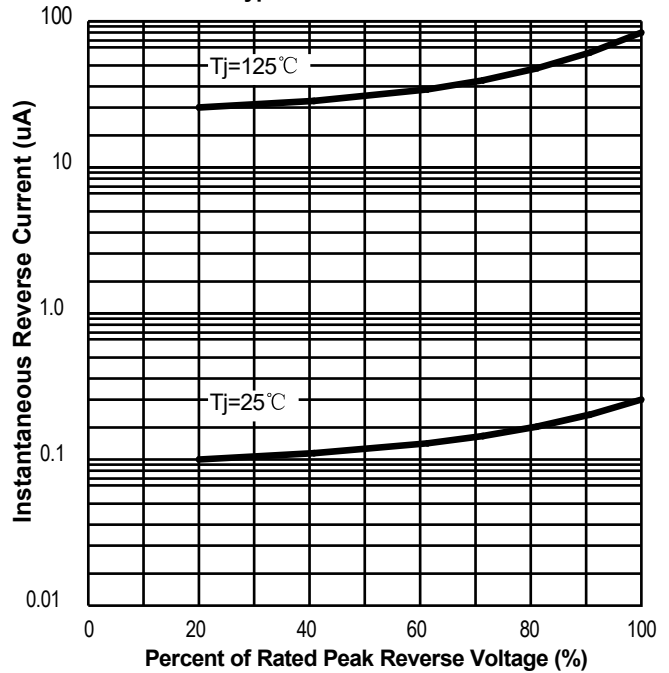
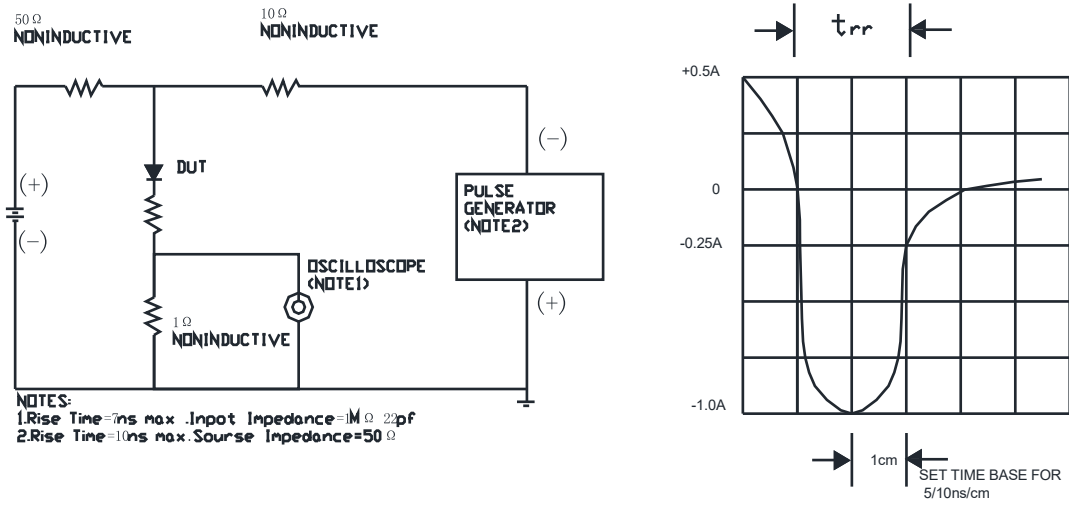
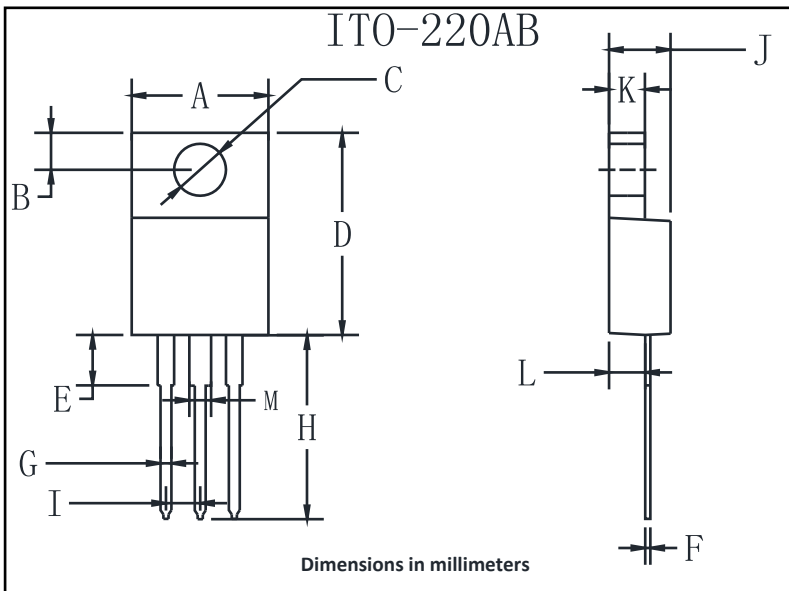


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



■ **OUTLINE DIMENSIONS**



ITO-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