



Features

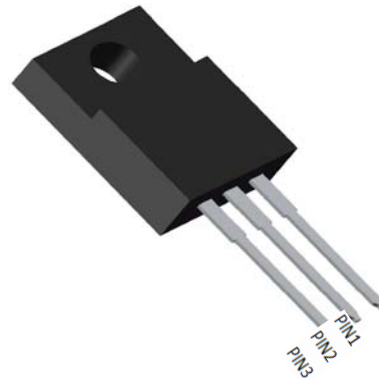
- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package:** ITO-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_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR2040FCTS
Device marking code			MUR2040FCT
Repetitive Peak Reverse Voltage	V _{RRM}	V	400
Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1)	I _O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25°C	I _{FSM}	A	180
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	60
Storage Temperature	T _{stg}	°C	-55 ~ +150
Junction Temperature	T _j	°C	-55 ~ +150
Junction capacitance @4V,1MHz	C _j	pF	50
Mounting torque @recommend torque: 5kg□cm	Tor	kg□cm	8



■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	$I_{FM}=10.0A @ T_j=25^{\circ}C$	-	1.15	1.35
			$I_{FM}=10.0A @ T_j=150^{\circ}C$		0.95	1.1
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ $T_j=25^{\circ}C$	-	-	5
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_j=150^{\circ}C$	-	40	100
Reverse Recovery Time	T_{rr}	ns	$I_F=0.5A I_{RM}=1A$ $I_{RR}=0.25A T_j=25^{\circ}C$	-	25	30
			$T_j=25^{\circ}C$	-	33.5	-
			$T_j=125^{\circ}C$	-	54.8	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}C$	-	4.1	-
			$T_j=125^{\circ}C$	-	8.1	-
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}C$	-	68.3	-
			$T_j=125^{\circ}C$	-	226.7	-

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

PARAMETER		SYMBOL	UNIT	MUR2040FCTS
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}C/W$	5.0
Thermal Resistance	Between junction and Air	$R_{\theta J-A}$	$^{\circ}C/W$	50

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR2040FCTS	Approximate 1.6	50	1000	5000	Tube

■Characteristics (Typical)

FIG1: $I_o - T_c$ Curve

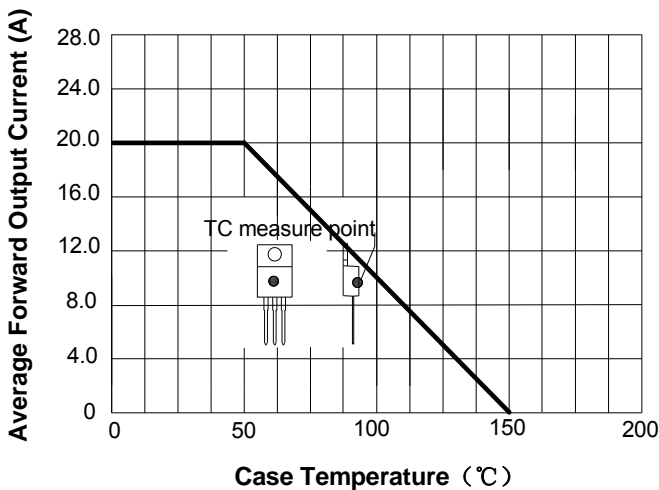


FIG2: Surge Forward Current Capability

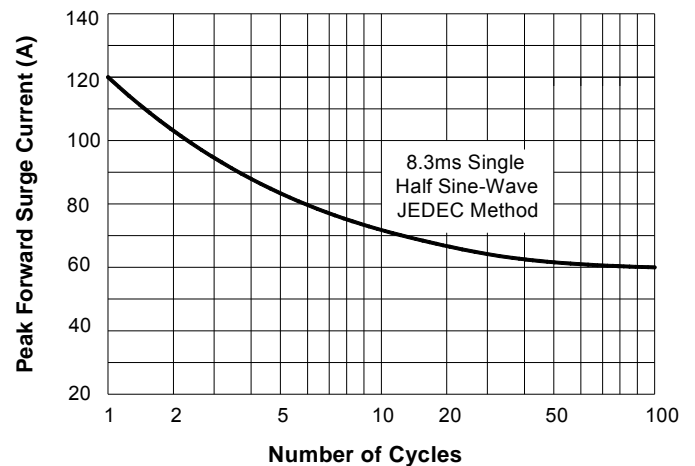




FIG3: Forward Voltage

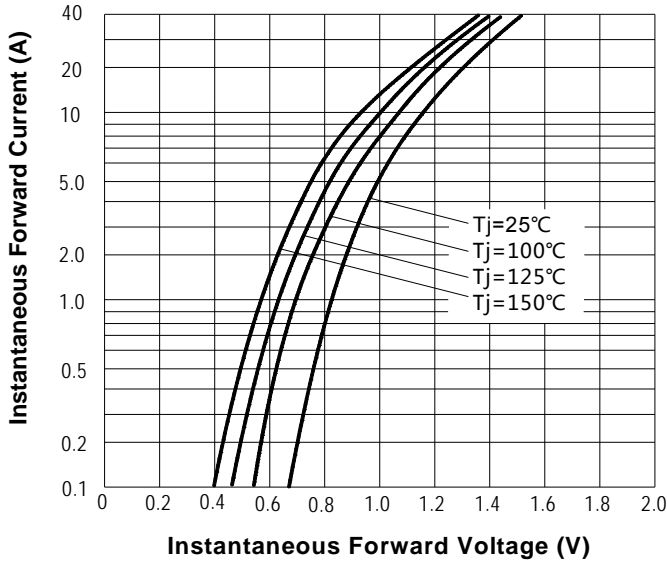


FIG.4: Instantaneous Reverse Characteristics

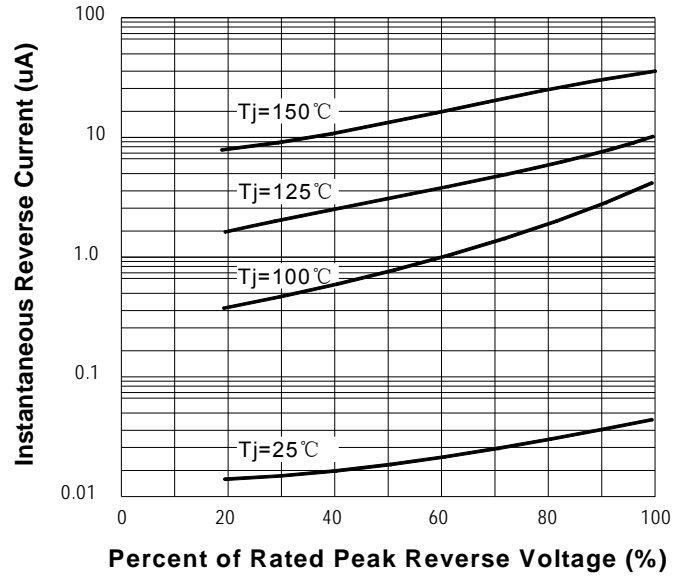
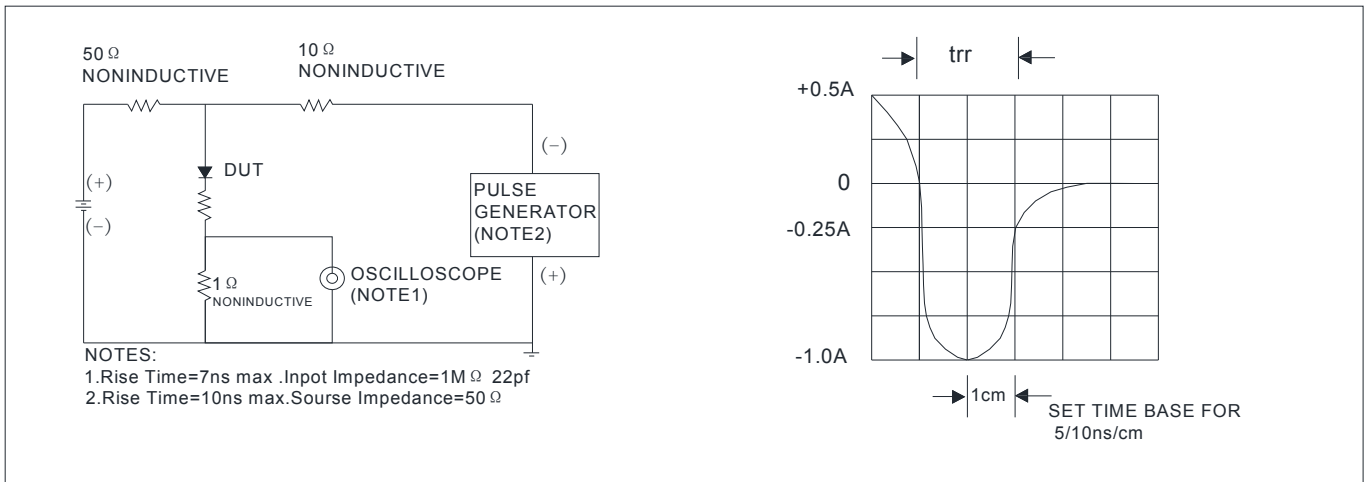
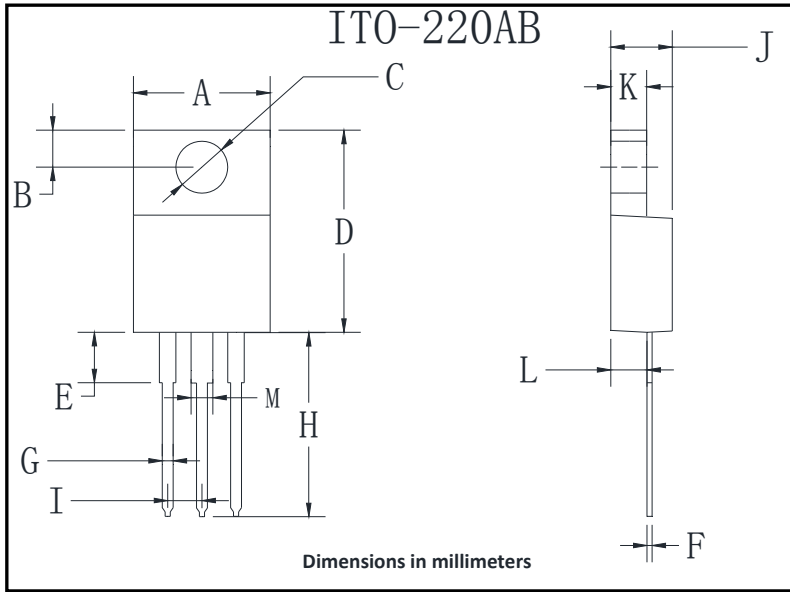


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





ITO-220AB		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.05	3.95
F	0.45	0.75
G	0.45	0.75
H	13.4	14.2
I	2.35	2.75
J	4.3	4.8
K	2.58	2.82
L	2.58	2.82
M	1.47	1.77

Package	Packing	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton Size L×W×H(mm)	Quantity(pcs/carton)
ITO-220AB	50pcs/Tube	558×148×38	1000	565×225×170	5000