



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
- Excellent high temperature stability
- Solder dip 275°C max.7 s,per JESD 22-B-106
- RoHs, REACH and WEEE compliant.

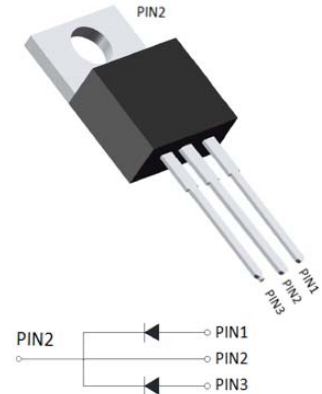
Typical Applications

- Typical applicataion are in switching power suppliers, Converters,freewheeling diodes,and reverse battery protection.

Mechanical Data

- Package:TO-220AB
Molding compound meets UL 94 V-0 flammability Rating,RoHS-compliant.
- Terminals:Tin plated leads,solderable per J-STD-002 and JESD22-B102.
- Moisture Sensitivity: MSL Level 1,per J-STD-020
Solderable per MIL-STD-202 Method 208
- Polarity:As marked

TO-220AB



■Maximum Ratings(Ta= 25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR1640CT
Device marking code			MUR1640CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	400
Average Rectified Output Current @60Hz sine-wave,R-load,T _C (FIG.1)	I_O	A	16
Surge(Non-repetitive)Forward Current @60Hz half-sine-wave1 cylce,Ta=25°C	I_{FSM}	A	100
Current Square Time@1ms≤t≤8.3ms Tj=25°C	I^2t	A ² s	41
Storage temperature range	T _{stg}	°C	-55~150
Junction temperature	T _j	°C	-55~150
Junction capacitance@4.0V,1MHz	C _J	pF	50



■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	$I_F=8.0A@T_J=25^{\circ}C$	-	-	1.30
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	μA	$V_{RM}=V_{RRM}$ $T_J=25^{\circ}C$	-	-	10
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_J=150^{\circ}C$	-	-	500
Reverse Recovery Time	T_{rr}	ns	$I_F=0.5A, I_{RM}=1A$ $I_{RR}=0.25A, T_J=25^{\circ}C$	-	-	35
Peak recovery current	I_{RRM}	A	$T_J=25^{\circ}C$	-	-	57.0
			$T_J=125^{\circ}C$			90.5
Reverse recovery charge	Q_{rr}	nC	$T_J=25^{\circ}C$	-	-	99.1
			$T_J=125^{\circ}C$	-	-	262.2

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

PARAMETER		SYMBOL	UNIT	MUR1610CT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}C/W$	2.0
Thermal Resistance	Between junction and Air	$R_{\theta J-A}$	$^{\circ}C/W$	50

■Ordering Information(Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR1640CT	Approximate 1.6	50	1000	5000	Tube

■Characteristics(Typical)

FIG1:Io -Tc Curve

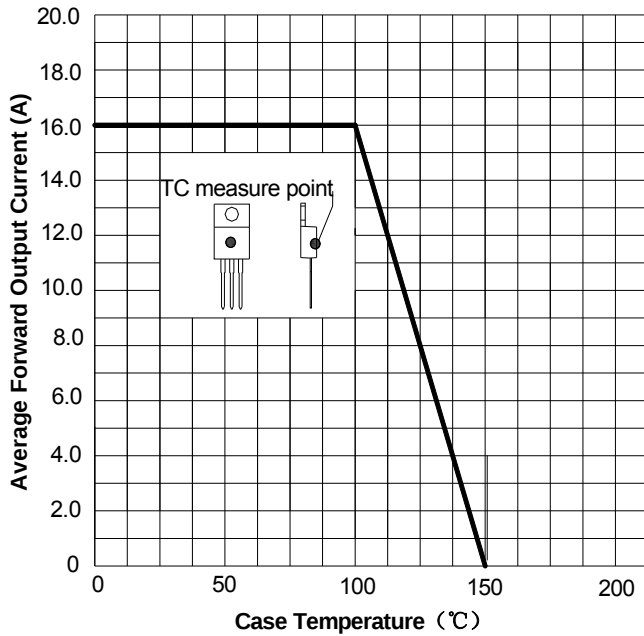


FIG2: Surge Forward Current Capability

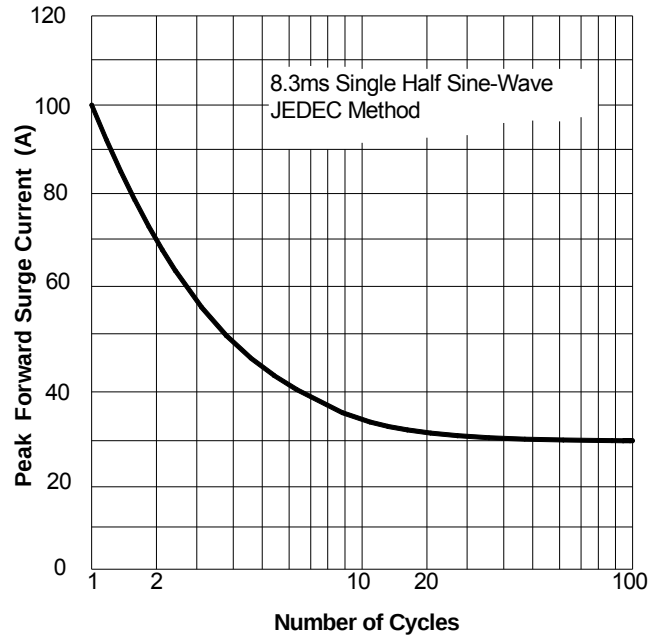


FIG3: Forward Voltage

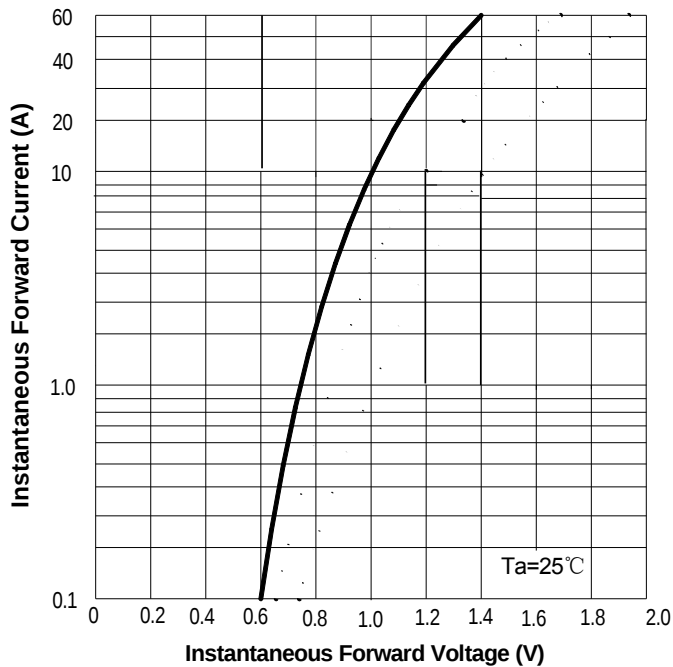


FIG4: Typical Reverse Characteristics

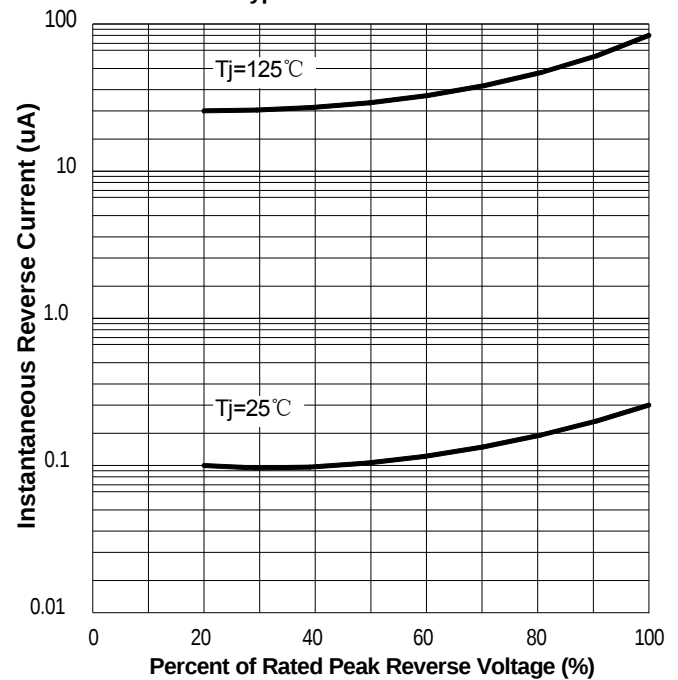
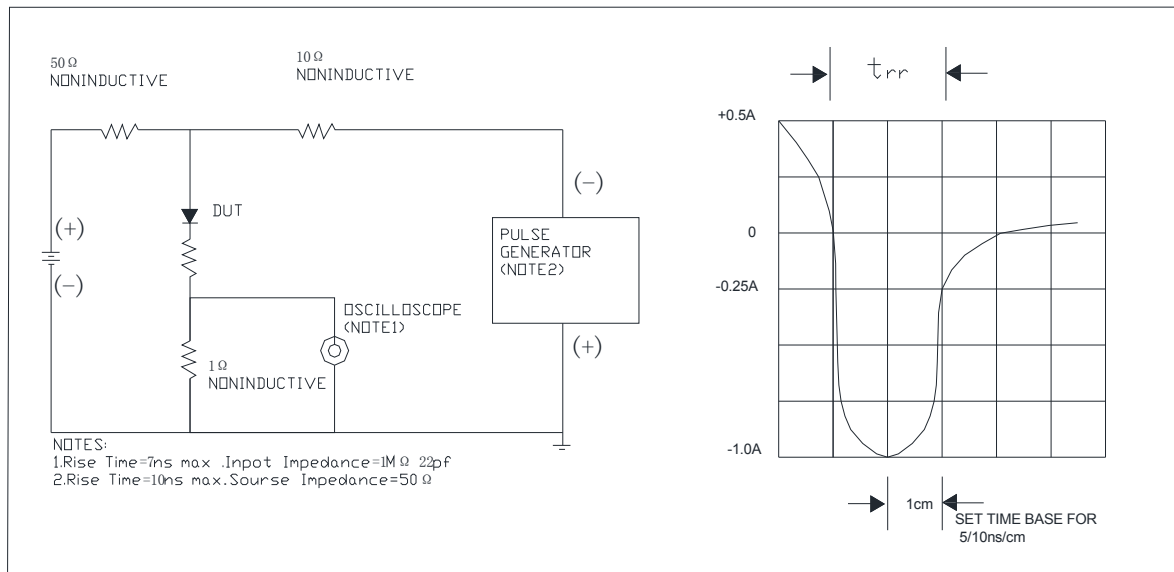
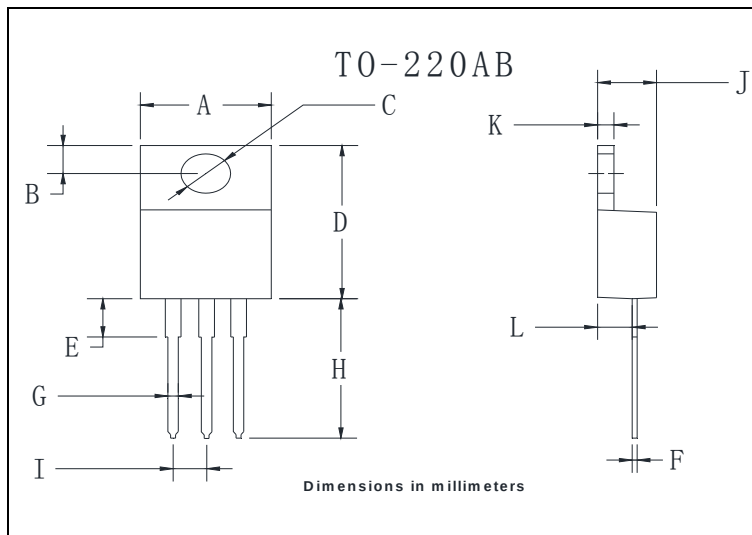


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



TO-220AB		
Dim	Min	Max
A	9.5	10.9
B	2.22	3.27
C	3.34	4.31
D	14.5	15.5
E	3.16	4.46
F	0.28	0.64
G	0.68	0.94
H	13.06	14.62
I	2.01	3.07
J	4.04	5.1
K	1.14	1.4
L	2.14	3.19