

Features

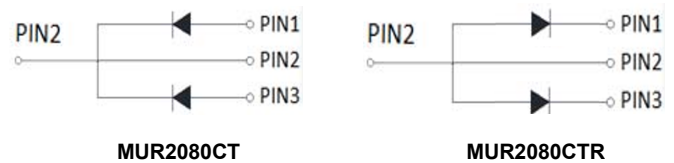
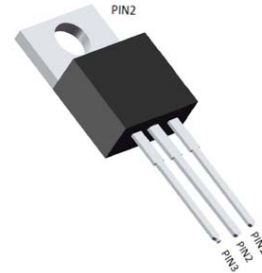
- Adopt FRD chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package:** TO-220AB 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°C Unless otherwise specified)

TYPE	V _{RSM} V	V _{RRM} V
MUR2080CT	800	800
MUR2080CTR	800	800

Symbol	Characteristics	Maximum Ratings	Unit
I _{AV}	Maximum Average Forward Rectified Current @T _c =95°C	20	A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	200	A
V _F	Maximum Forward Voltage At Pulse Width=300us 2% Duty Cycle I _F =10A @T _J =25°C I _F =10A @T _J =125°C	1.75 1.55	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	3 100	uA
C _J	Typical Junction Capacitance Per Element (Note 1)	150	pF
T _{RR}	Maximum Reverse Recovery Time (Note 2)	50	ns
R _{θJC}	Typical Thermal Resistance (Note 3)	1.5	°C/W
T _J , T _{STG}	Operating And Storage Temperature Range	-55 to +175	°C

NOTES: 1. Measured At 1.0MHz And Applied Reverse Voltage Of 4.0V DC.
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.
3. Thermal Resistance Junction To Case.

■ Characteristics (Typical)

FIG.1 - FORWARD CURRENT DERATING CURVE

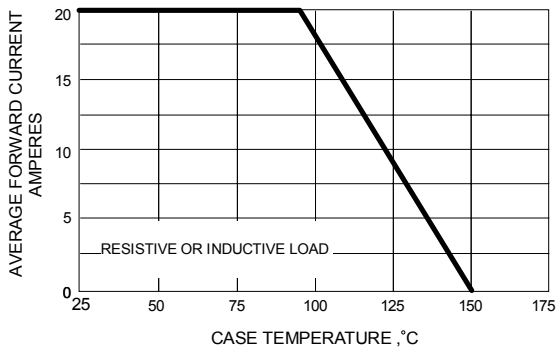


FIG.2 - MAXIMUM NON-REPETITIVE SURGE

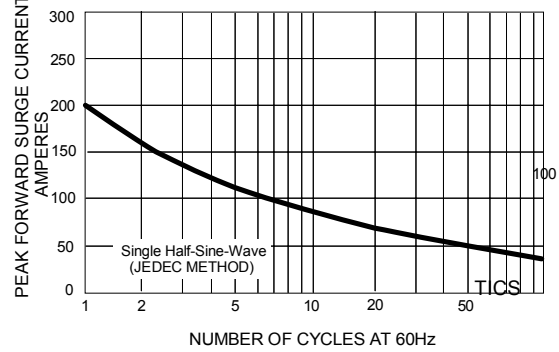


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

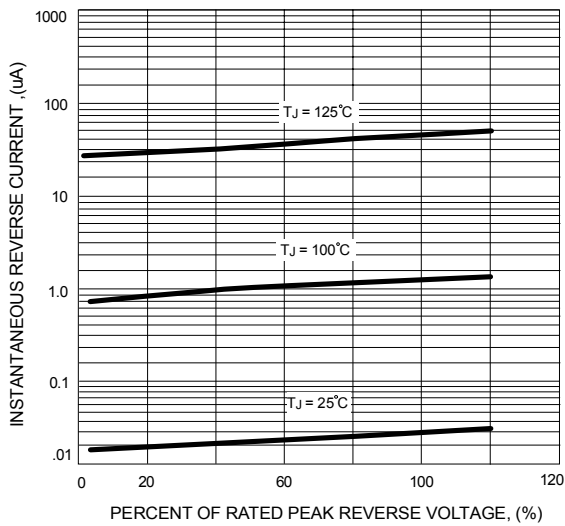


FIG.4 - TYPICAL FORWARD CHARACTERIS

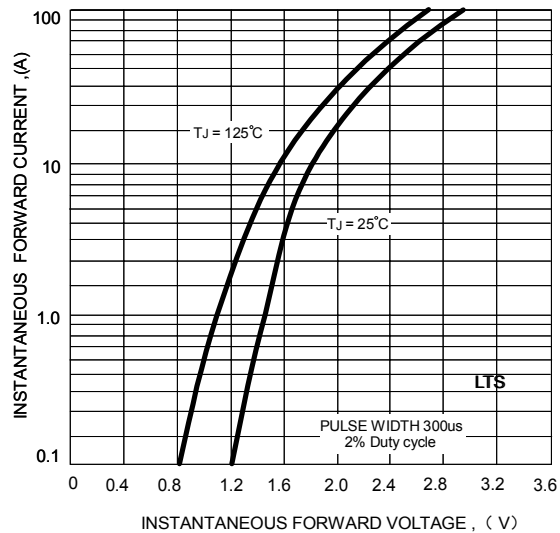


FIG.5 - TYPICAL JUNCTION CAPACITANCE

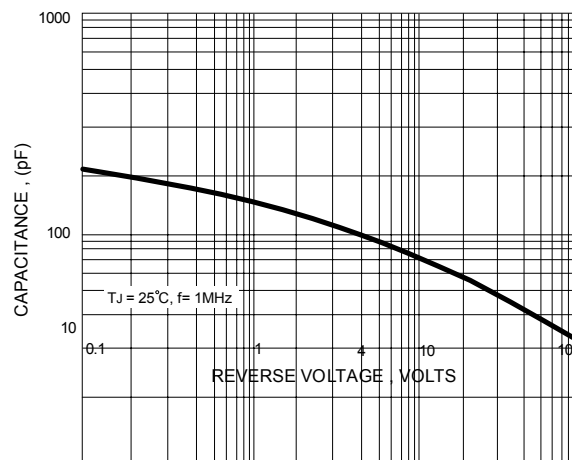
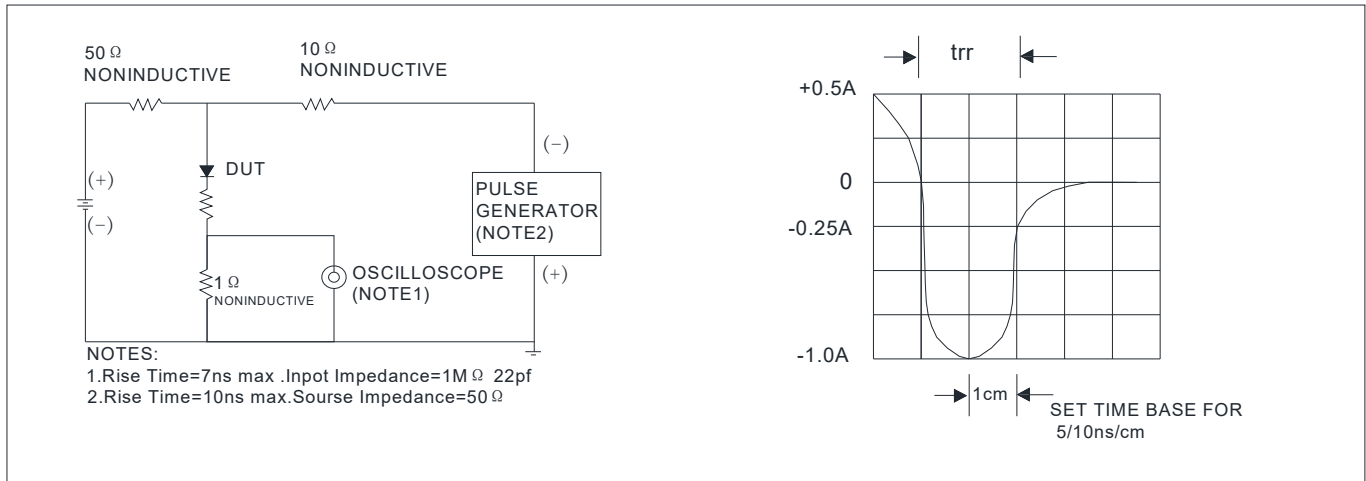


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



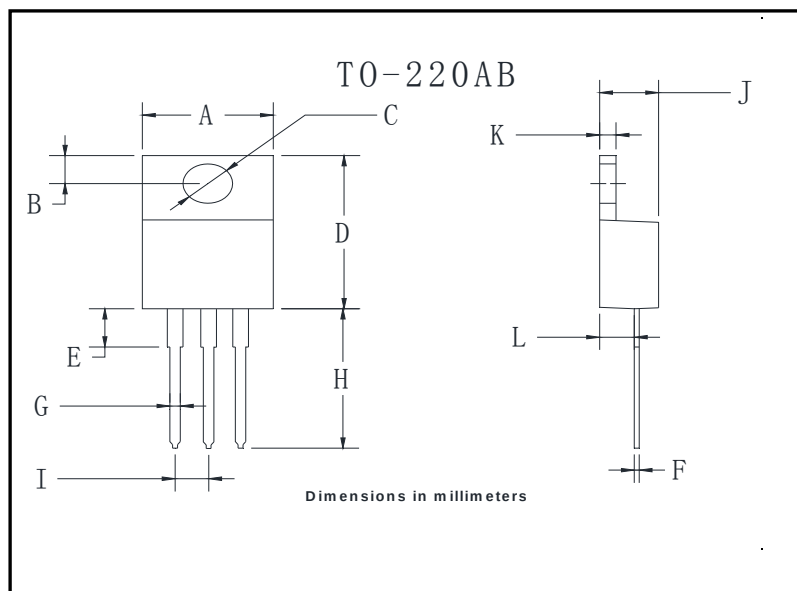
■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MUR2080CT/MUR2080CTR
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	°C/W	4.0
	Between junction and Air	$R_{\theta J-A}$	°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
MUR2080CT/MUR2080CTR	Approximate 1.6	50	1000	5000	Tube

■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