



Features

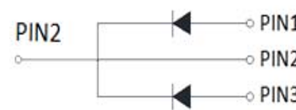
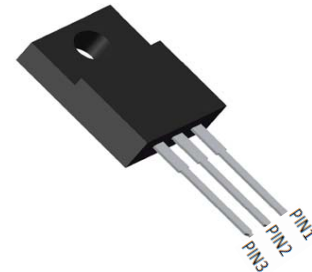
- Adopt FRD chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package:** 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



MURF2080CT



MURF2080CTR

Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

TYPE	V_{RSM} V	V_{RRM} V
MURF2080CT	800	800
MURF2080CTR	800	800

Symbol	Characteristics	Maximum Ratings	Unit
$I_{(AV)}$	Maximum Average Forward Rectified Current @ $T_C=95^{\circ}\text{C}$	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 $I_F=10\text{A}$ @ $T_J=25^{\circ}\text{C}$ $I_F=10\text{A}$ @ $T_J=125^{\circ}\text{C}$	1.75 1.55	V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=25^{\circ}\text{C}$ @ $T_J=100^{\circ}\text{C}$	3 100	μA
C_J	Typical Junction Capacitance Per Element (Note 1)	150	pF
T_{RR}	Maximum Reverse Recovery Time (Note 2)	50	ns
$R_{\theta JC}$	Typical Thermal Resistance (Note 3)	1.5	$^{\circ}\text{C/W}$
T_J, T_{STG}	Operating And Storage Temperature Range	-55 to +175	$^{\circ}\text{C}$

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

■ Characteristics (Typical)

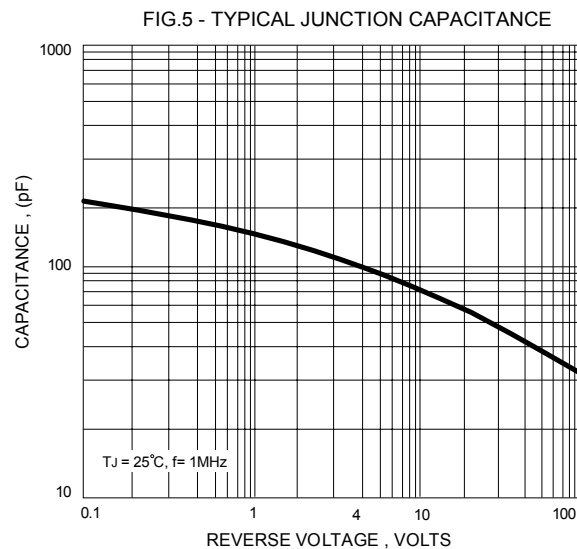
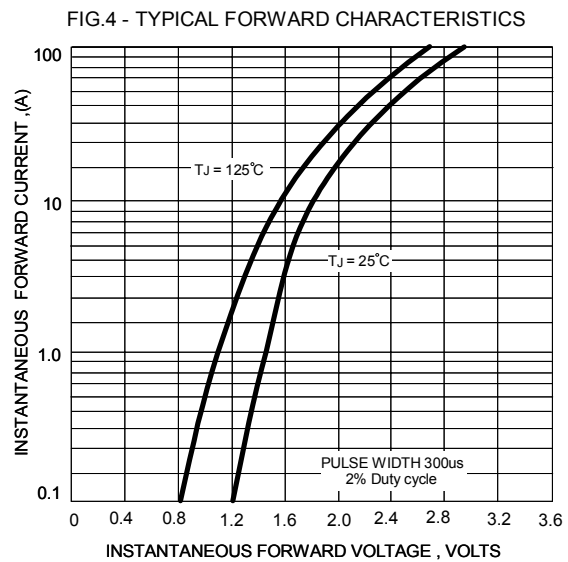
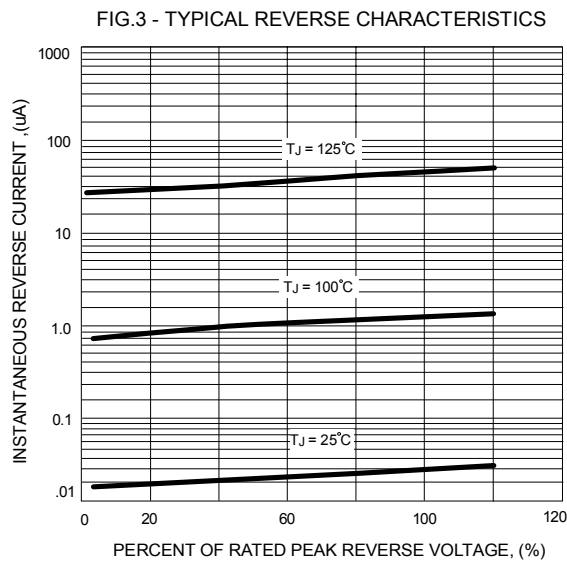
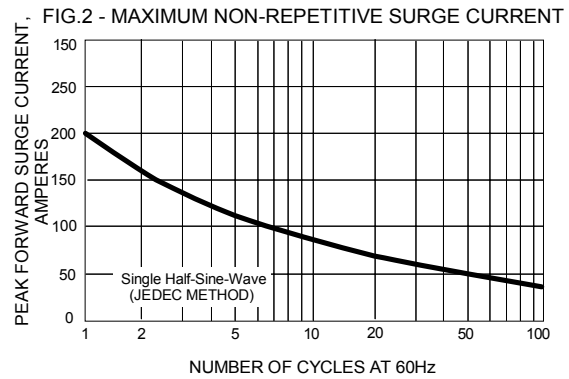
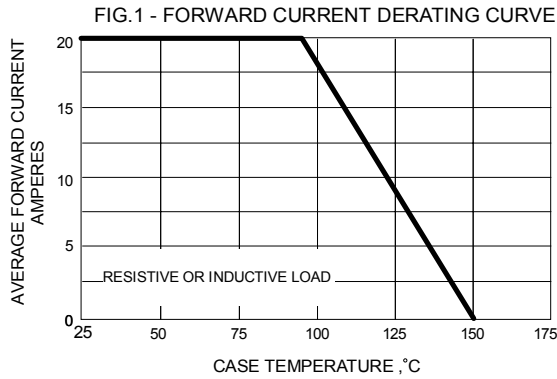
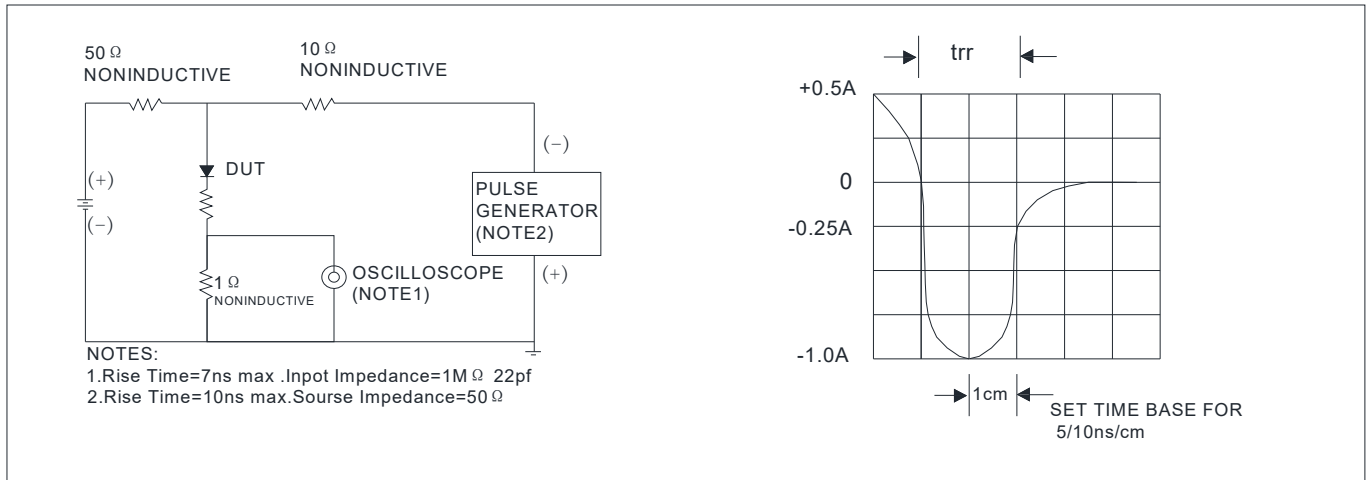


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



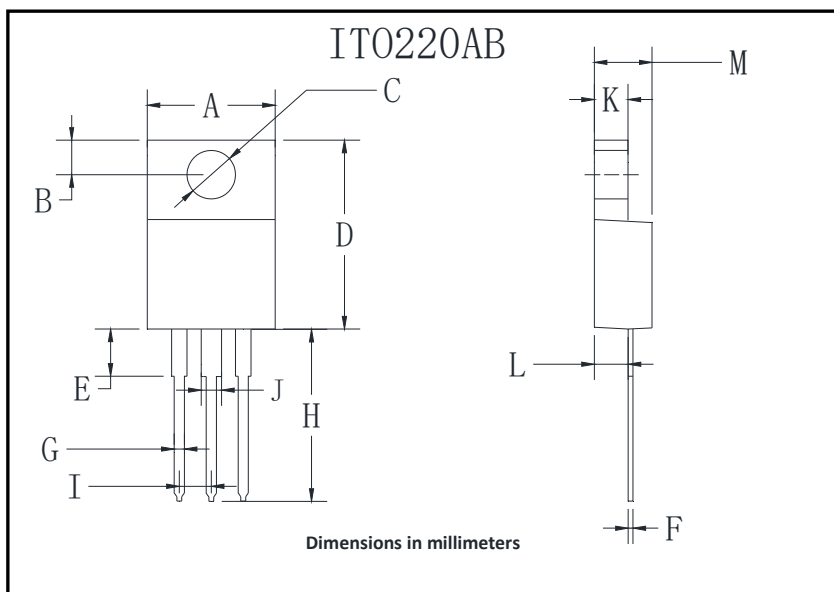
■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MURF2080CT/MURF2080CTR
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
MURF2080CT/MURF2080CTR	Approximate 1.6	50	1000	5000	Tube

■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	1.4	1.8
K	2.1	3.56
L	2.1	3.2
M	3.9	5.1