



MUR880H/MUR880HF

Ultra-Fast Recovery Diodes 8A FRD Pt



Features

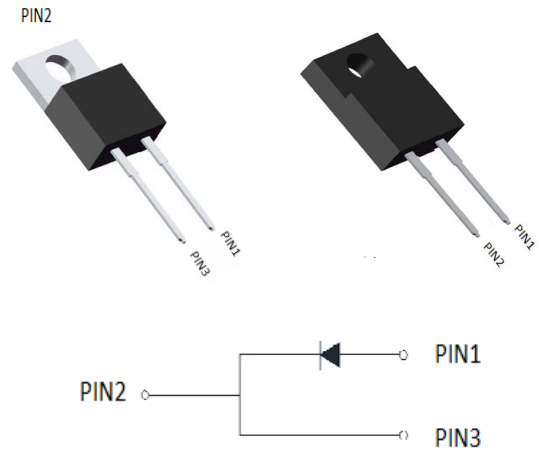
- Adopt FRD chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package:** TO-220AC ITO-220AC
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 ($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

TYPE	V_{RSM} V	V_{RRM} V
MUR880H	800	800
MUR880HF	800	800

Parameter	Symbol	MUR880H/MUR880HF	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current (Total Device)	$I_{F(AV)}$	8	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	145	A
Maximum Instantaneous Forward Voltage (Note 1) @ 8 A (Per Diode/Per Leg)	V_F	1.85	V
Maximum DC Reverse Current @ $T_A=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^{\circ}\text{C}$	I_R	5.0 100	μA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	60	nS
Typical Junction Capacitance (Note 3)	C_j	50	pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5	$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	- 55 to + 175	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175	$^{\circ}\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

■ Characteristics (Typical)

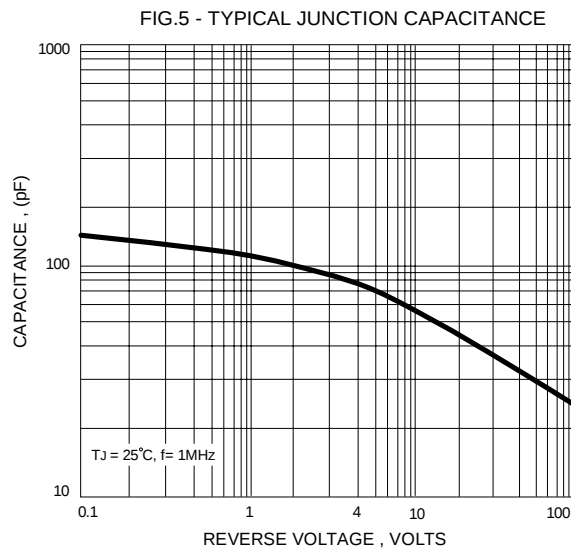
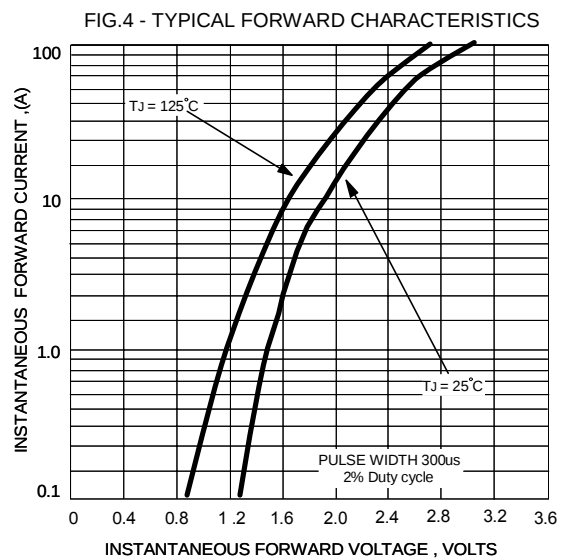
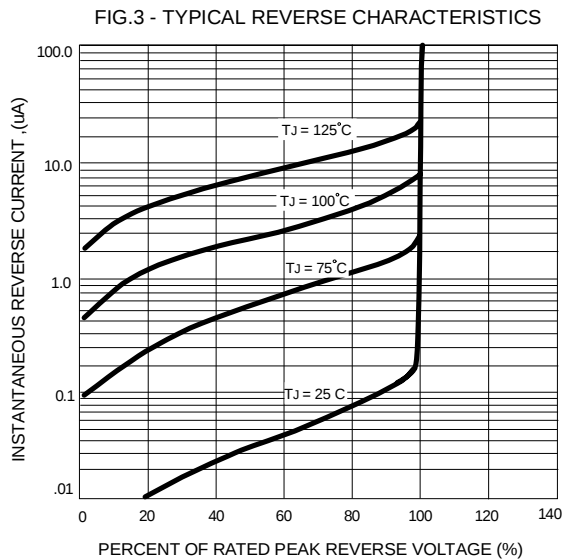
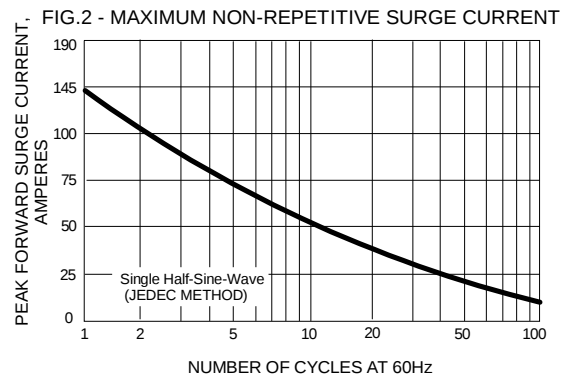
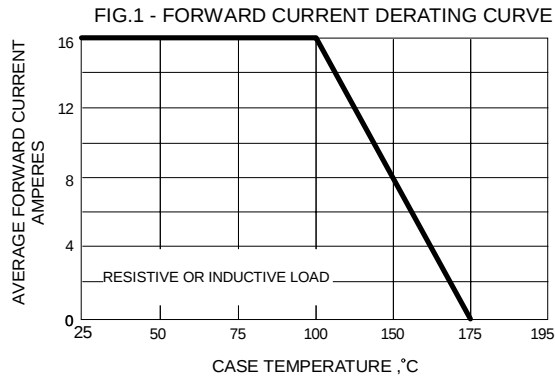
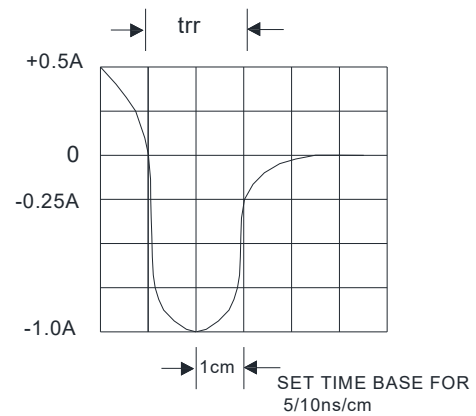
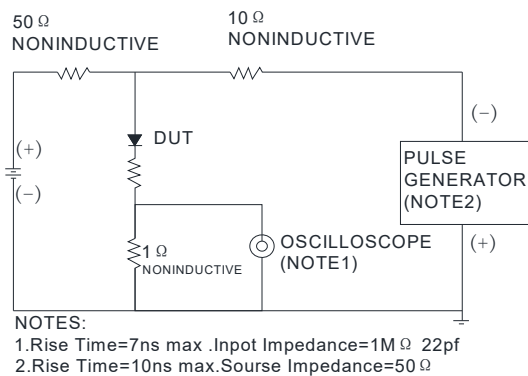


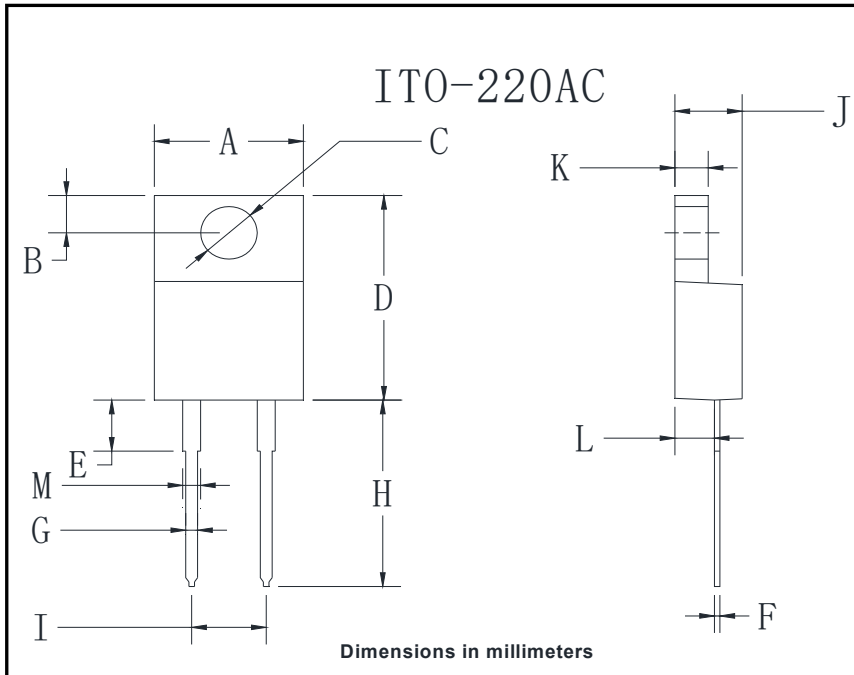
FIG.5: Diagram of circuit and Testing wave form of reverse reco



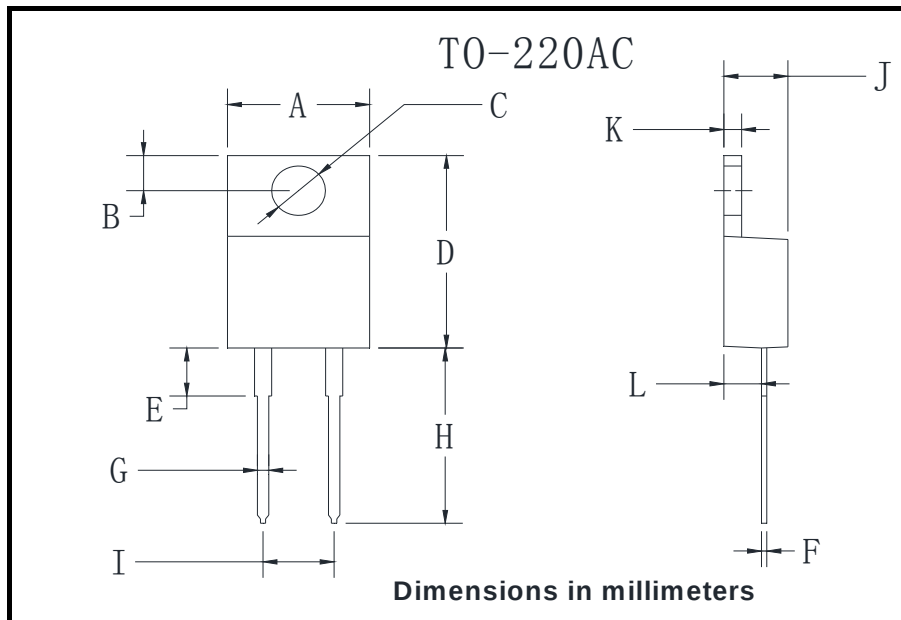
■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MUR880H/MUR880HF
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

■Outline Dimensions



ITO-220AC		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.5	4.1
F	0.45	0.75
G	0.45	0.75
H	13.35	14.15
I	4.97	5.23
J	4.3	4.8
K	2.5	2.74
L	2.58	2.82
M	1.03	1.43



TO- 220AC		
Dim	Min	Max
A	9.95	10.35
B	2.55	2.95
C	3.75	4.05
D	14.95	15.25
E	3.75	4.25
F	0.26	0.5
G	0.68	0.94
H	13.3	13.9
I	4.86	5.26
J	4.38	4.78
K	1.14	1.4
L	2.37	2.79

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR880H/MUR880HF	Approximate 1.6	50	1000	5000	Tube