FUXINSEMI
INNOVATOR IN SEMICONDUCTOR

MUR8xxF

8A Super Fast Recovery Rectifiers - 200V-600V

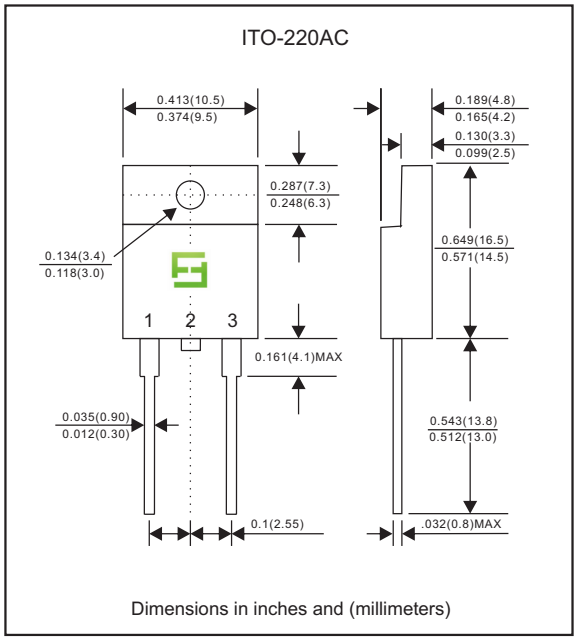
Features

- Low forward voltage, high current capability
- High surge current capability.
- Super fast recovery time for switching mode application.
- Low power loss.
- Glass passivated chip junctions.
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Suffix "-H" indicates Halogen-free parts, ex.**MUR860F-H**

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : JEDEC ITO-220AC molded plastic body over passivated chip
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity: As marked
- Mounting Position : Any

Package outline



Maximum ratings (AT T_A=25°C unless otherwise noted)

PARAMETER	SYMBOLS	MUR820F	MUR840F	MUR860F	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward rectified current	I_O	8			A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	I_{FSM}	125			A
Operating junction temperature range	T_J	-55 to +150			°C
Storage temperature range	T_{STG}	-55 to +150			°C

Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	SYMBOLS	MUR820F	MUR840F	MUR860F	UNIT
Maximum forward voltage per leg at IF=5.0A	V_F	0.98	1.40	1.80	V
Maximum reverse recovery time per leg (Note 1)	trr	50		75	ns
Maximum DC reverse current at TJ =25°C at rated DC blocking voltage per leg at TJ =125°C	I_R	10 500			uA uA

Thermal Characteristics

PARAMETER	SYMBOLS	MUR820F	MUR840F	MUR860F	UNIT
Typical thermal resistance junction to case per leg	$R_{\theta JC}$	3.0			°C/W

Note 1: Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

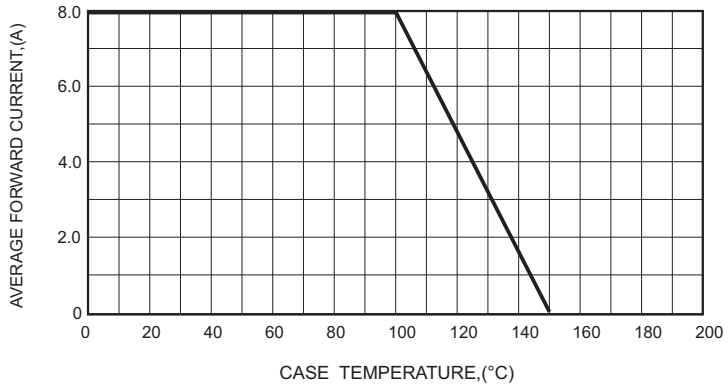


FIG.2-TYPICAL FORWARD CHARACTERISTICS

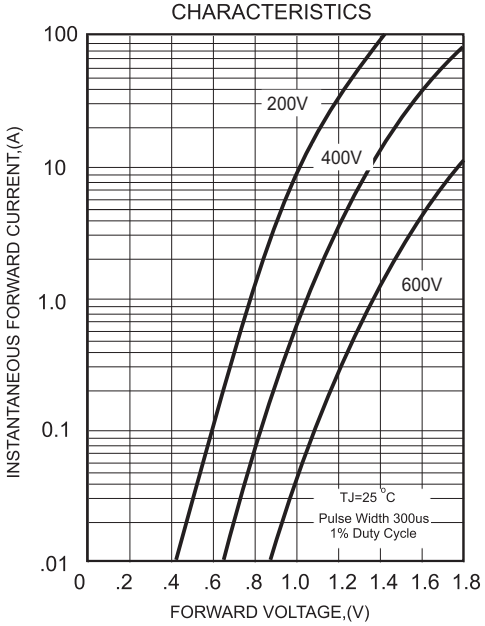


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

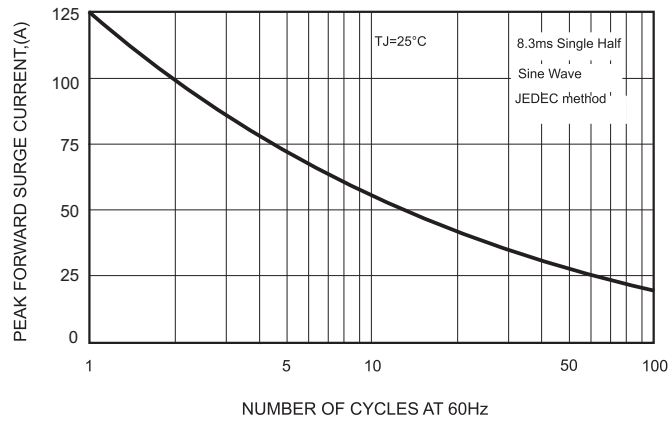


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

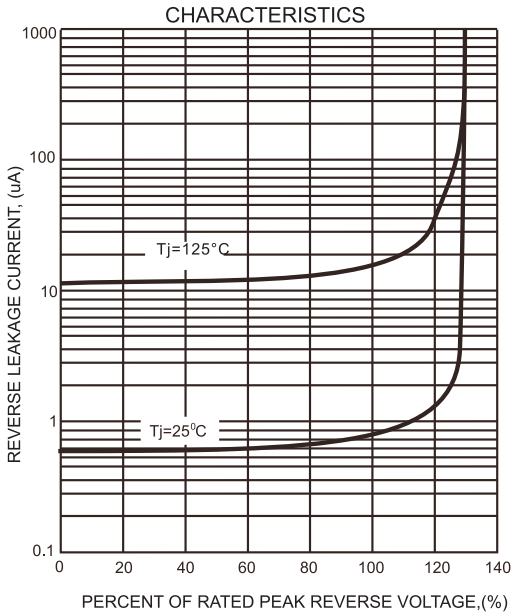
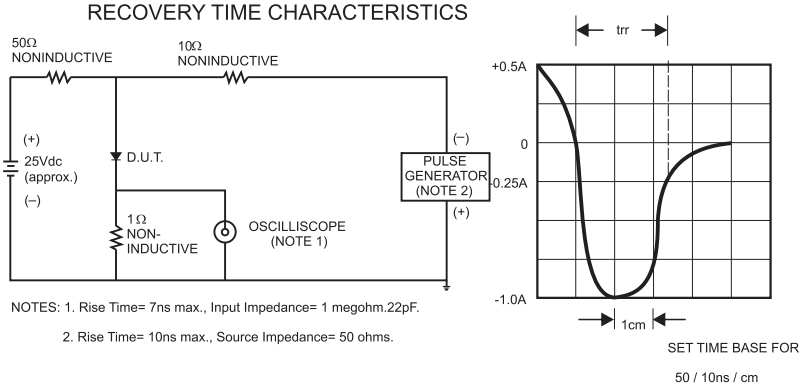


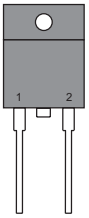
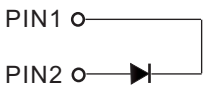
FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR820F	MUR820F
MUR840F	MUR840F
MUR860F	MUR860F

Suggested thermal profiles for soldering processes

1.Lead free temperature profile wave-soldering