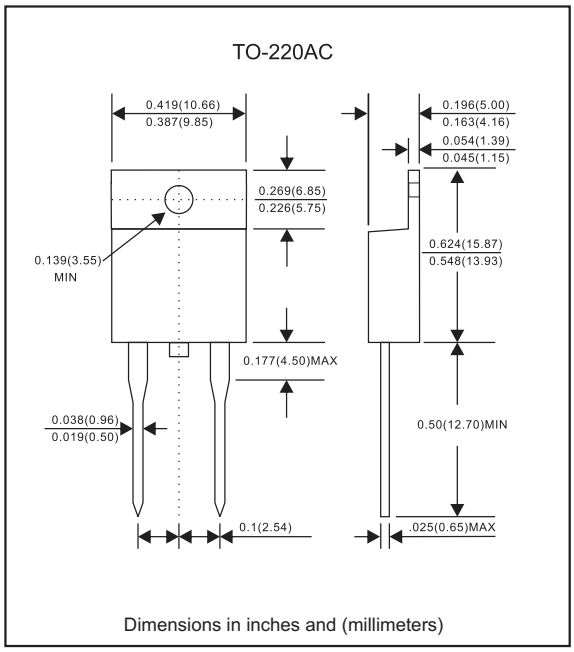
MUR810 THRU MUR860

8.0A Super Fast Recovery Rectifiers - 100V - 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

Package outline



Mechanical data

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

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

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	100	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}	100				A
Operating junction temperature range	T_J	-55 to +150				°C
Storage temperature range	T_{STG}	-65 to +175				°C

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

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Maximum forward voltage at IF=8A	V_F	0.98		1.30	1.70	V
Maximum reverse recovery time per leg (Note 1)	trr	35			50	ns
Maximum DC reverse current at TJ =25°C at rated DC blocking voltage per leg at TJ =125°C	I_R	5.0 500				uA uA

Thermal Characteristics

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Typical thermal resistance junction to case per leg	$R_{\theta JC}$	2.0				°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 (MUR810 THRU MUR860)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

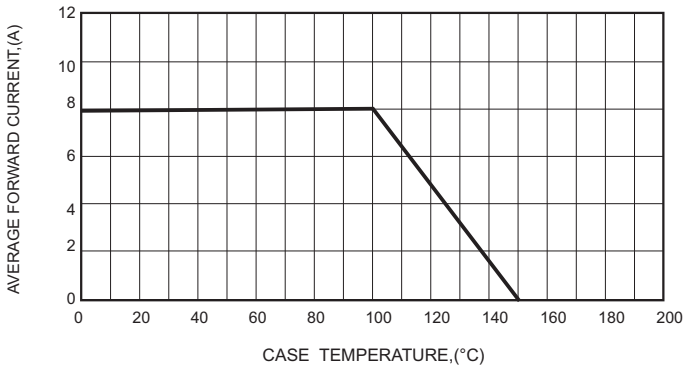


FIG.2-TYPICAL FORWARD CHARACTERISTICS

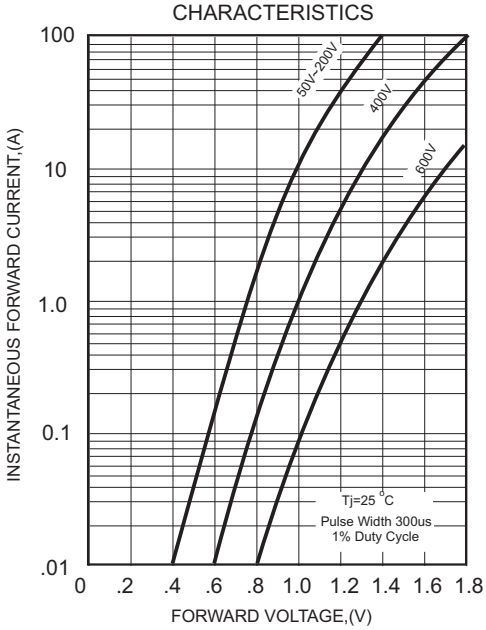


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

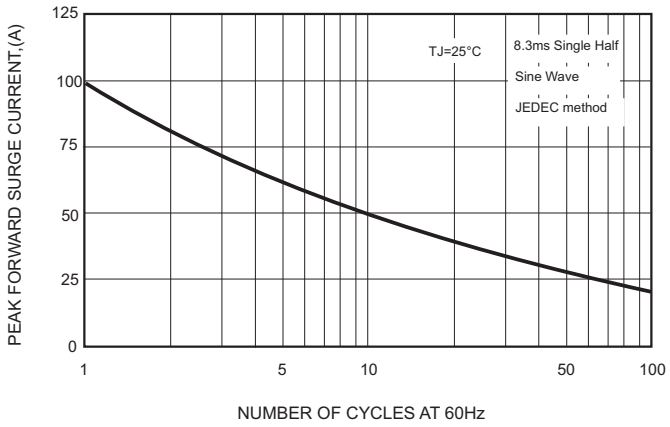


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

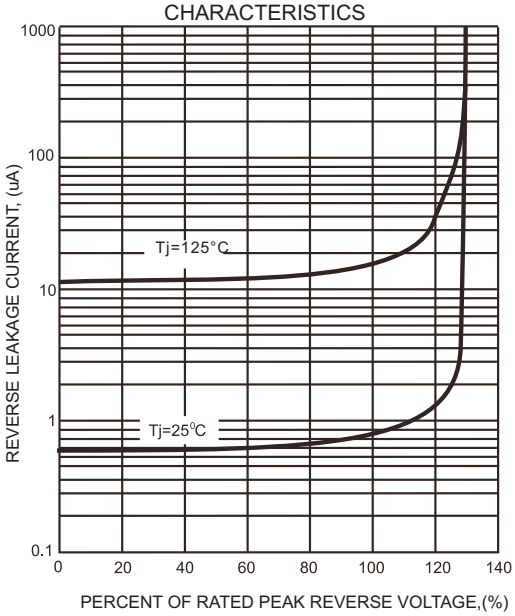
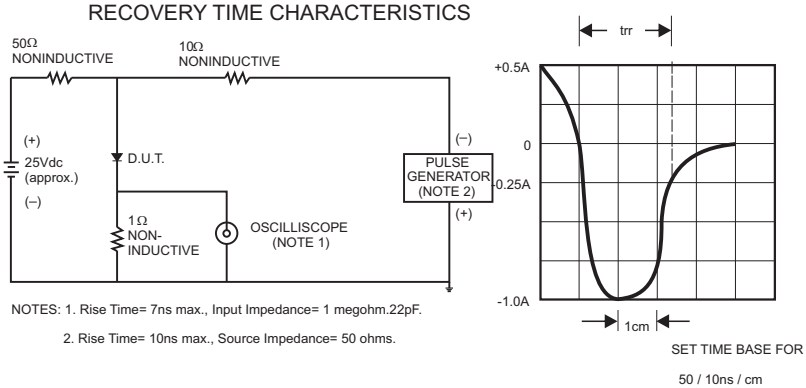


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



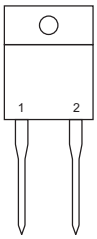
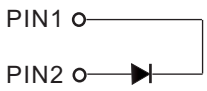
NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

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

MUR810 THRU MUR860

8.0A Super Fast Recovery Rectifiers - 100V - 600V

Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR810	MUR810
MUR820	MUR820
MUR840	MUR840
MUR860	MUR860