

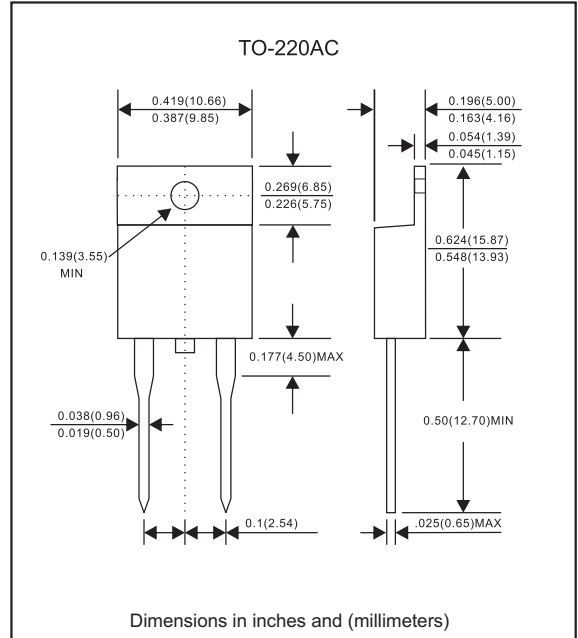
### Features

- 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

### 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 guaranteed
- Polarity: As marked
- Mounting Position : Any

### Package outline



### Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	200	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	70	140	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	100	200	400	600	V
Maximum average forward rectified current	I <sub>O</sub>	8				A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	I <sub>FSM</sub>	100				A
Operating junction temperature range	T <sub>J</sub>	-55 to +150				°C
Storage temperature range	T <sub>STG</sub>	-65 to +175				°C

### Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Maximum forward voltage at IF=8A	V <sub>F</sub>	0.98		1.30	1.70	V
Maximum reverse recovery time per leg (Note 1)	t <sub>rr</sub>	35			50	ns
Maximum DC reverse current at T <sub>J</sub> =25°C at rated DC blocking voltage per leg at T <sub>J</sub> =125°C	I <sub>R</sub>	5.0			500	uA uA

### Thermal Characteristics

PARAMETER	SYMBOLS	MUR810	MUR820	MUR840	MUR860	UNIT
Typical thermal resistance junction to case per leg	R <sub>θJC</sub>	2.0				°C/W

Note 1: Reverse recovery time test condition, I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

# Rating and characteristic curves ( MUR810 THRU MUR860 )

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

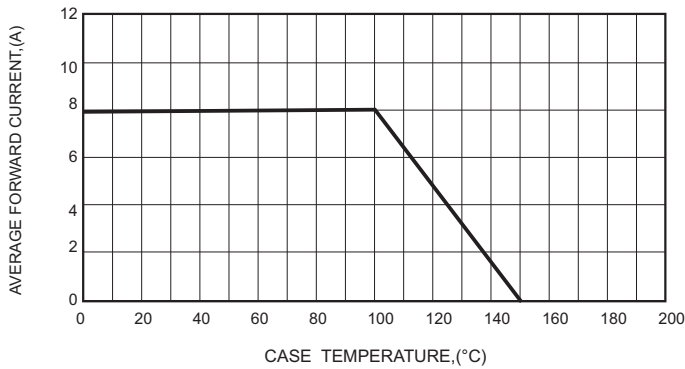


FIG.2-TYPICAL FORWARD CHARACTERISTICS

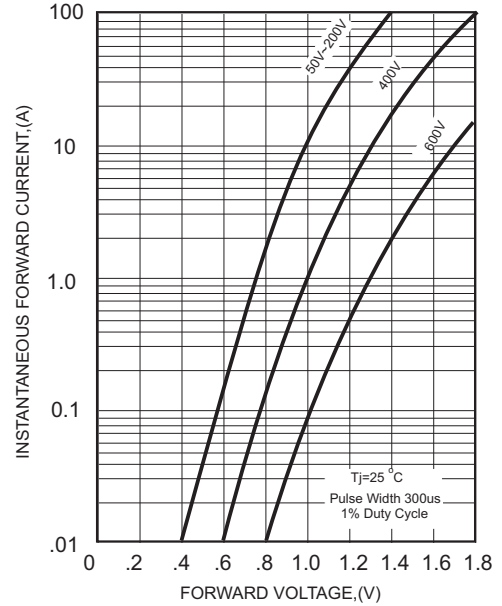


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

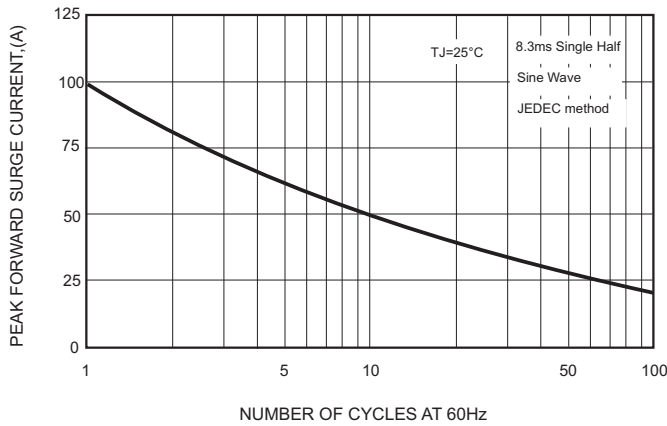


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

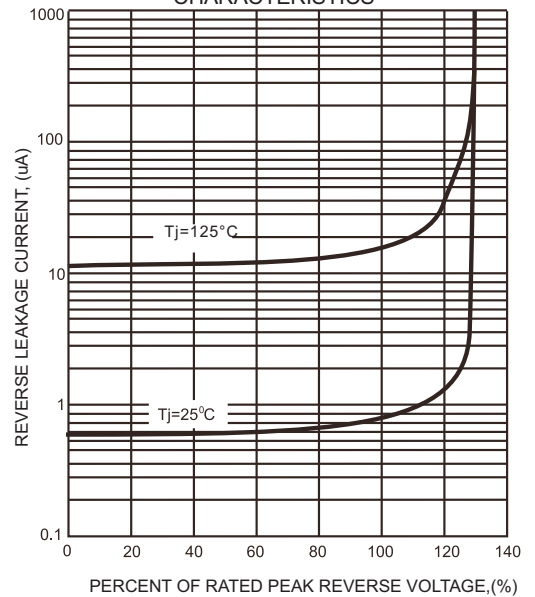
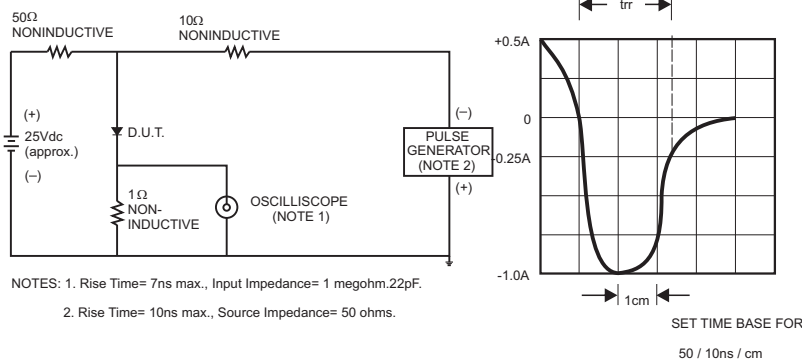
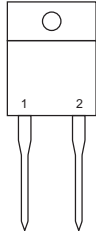
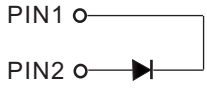


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

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