

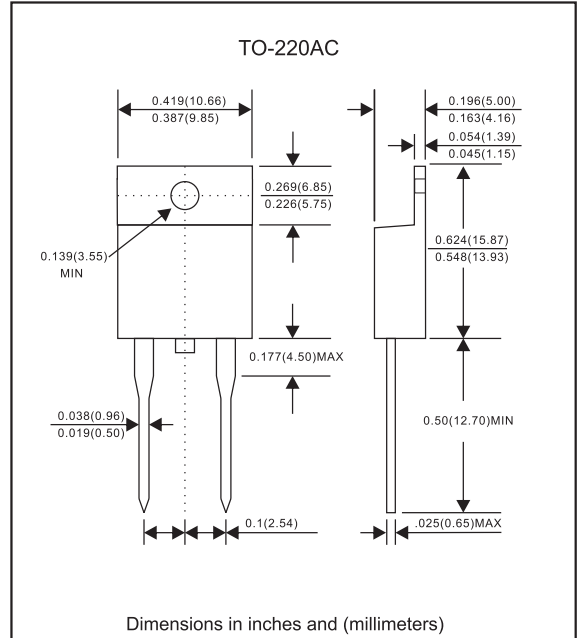
Features

- 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	MUR1010	MUR1020	MUR1040	MUR1060	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	10				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}	-65 to +175				°C

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

PARAMETER	SYMBOLS	MUR1010	MUR1020	MUR1040	MUR1060	UNIT
Maximum forward voltage at IF=8A	V _F	0.98		1.30	1.70	V
Maximum reverse recovery time per leg (Note 1)	t _{rr}	35			50	ns
Maximum DC reverse current at T _J =25°C at rated DC blocking voltage per leg at T _J =125°C	I _R	5.0			500	uA uA

Thermal Characteristics

PARAMETER	SYMBOLS	MUR1010	MUR1020	MUR1040	MUR1060	UNIT
Typical thermal resistance junction to case per leg	R _{θJC}	2.5				°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 (MUR1010 THRU MUR1060)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

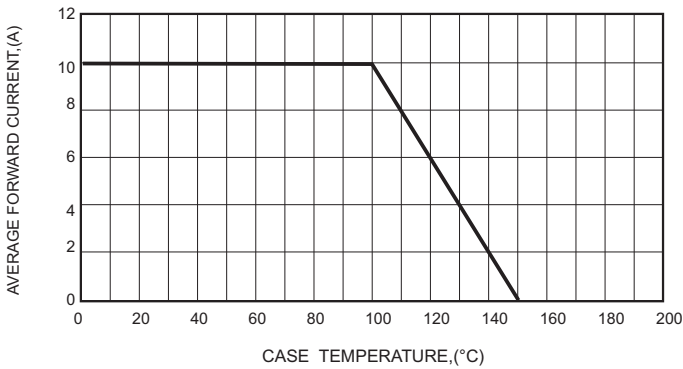


FIG.2-TYPICAL FORWARD CHARACTERISTICS

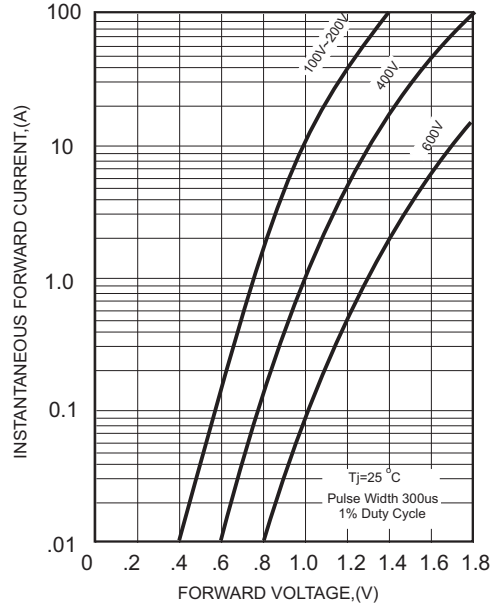


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

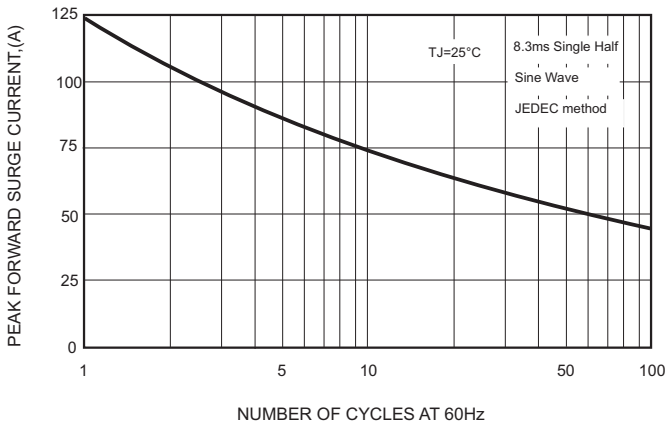


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

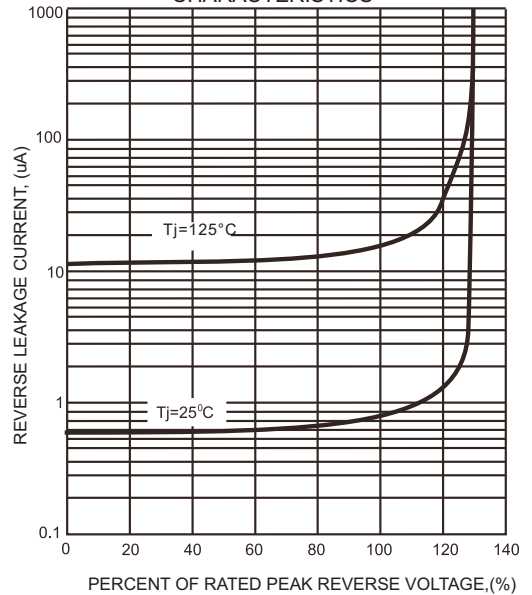
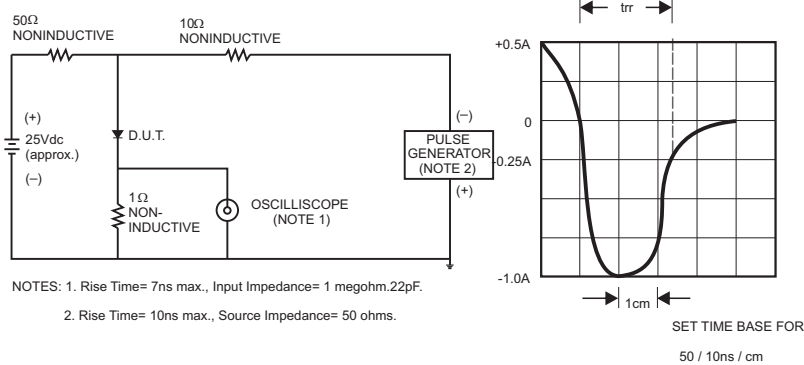


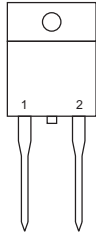
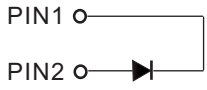
FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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
MUR1010	MUR1010
MUR1020	MUR1020
MUR1040	MUR1040
MUR1060	MUR1060