

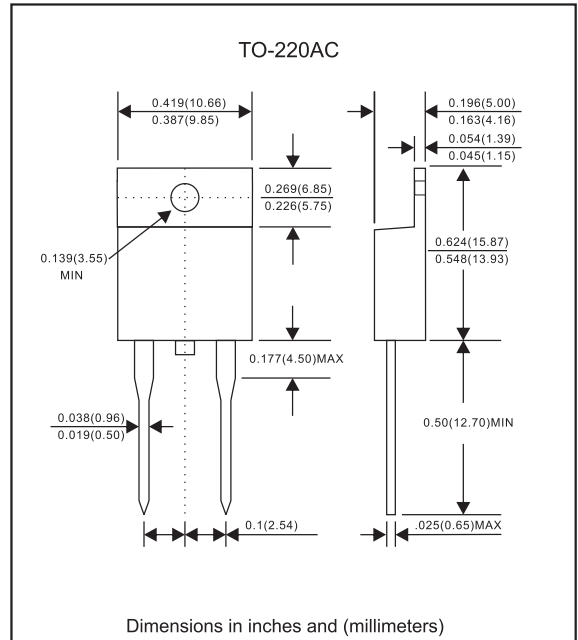
Features

- 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

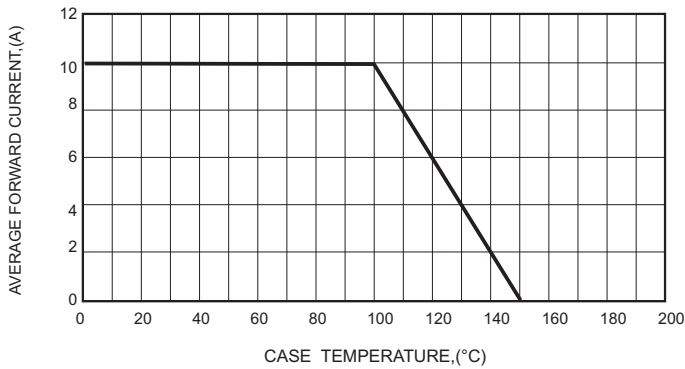


FIG.2-TYPICAL FORWARD CHARACTERISTICS

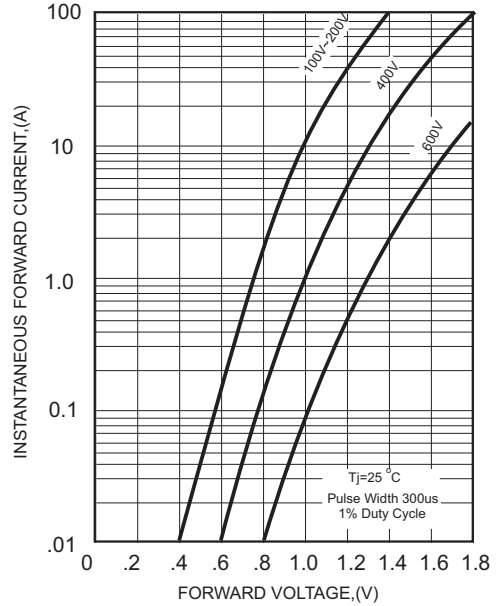


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

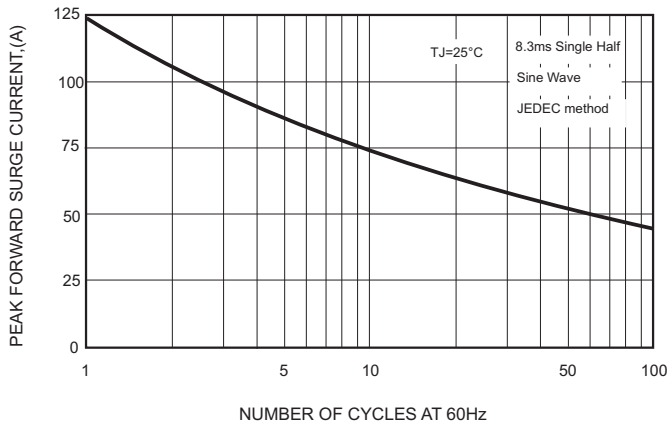


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

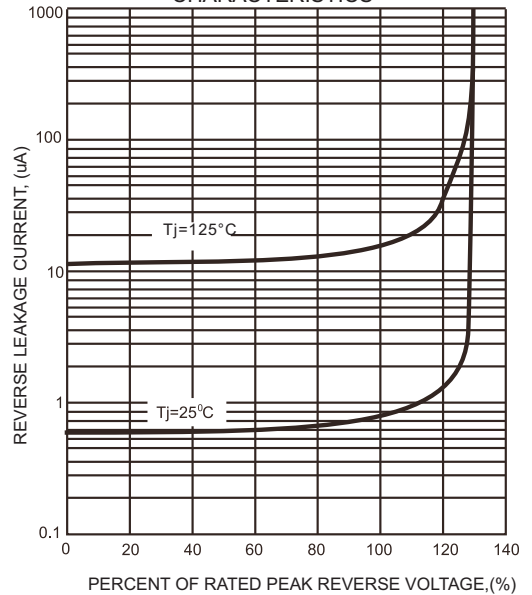
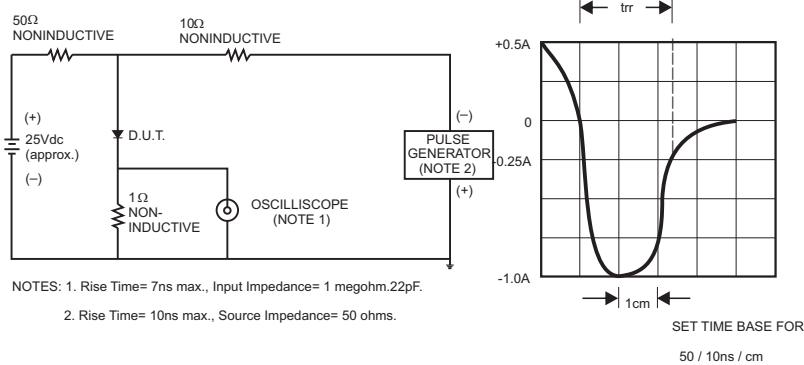
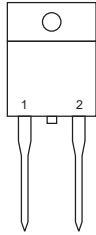
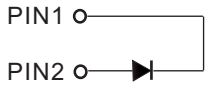


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR1010	MUR1010
MUR1020	MUR1020
MUR1040	MUR1040
MUR1060	MUR1060