

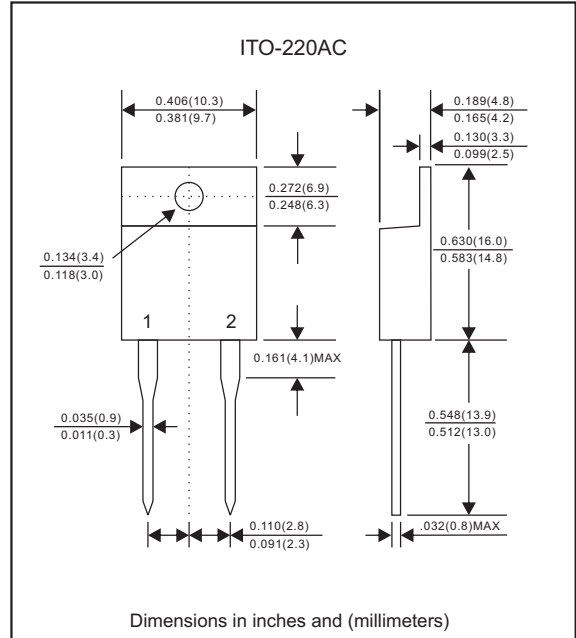
Features

- 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 ITO-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	MUR810F	MUR820F	MUR840F	MUR860F	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				$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 to +175				$^{\circ}\text{C}$

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

PARAMETER	SYMBOLS	MUR810F	MUR820F	MUR840F	MUR860F	UNIT
Maximum forward voltage at $I_F=8\text{A}$	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 $T_J=25^{\circ}\text{C}$ at rated DC blocking voltage per leg at $T_J=125^{\circ}\text{C}$	I_R	5.0			500	μA μA

Thermal Characteristics

PARAMETER	SYMBOLS	MUR810F	MUR820F	MUR840F	MUR860F	UNIT
Typical thermal resistance junction to case per leg	$R_{\theta JC}$	3.0				$^{\circ}\text{C}/\text{W}$

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

Rating and characteristic curves (MUR810F THRU MUR860F)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

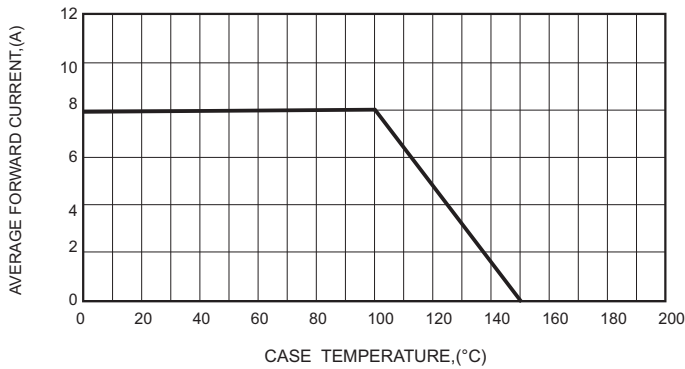


FIG.2-TYPICAL FORWARD CHARACTERISTICS

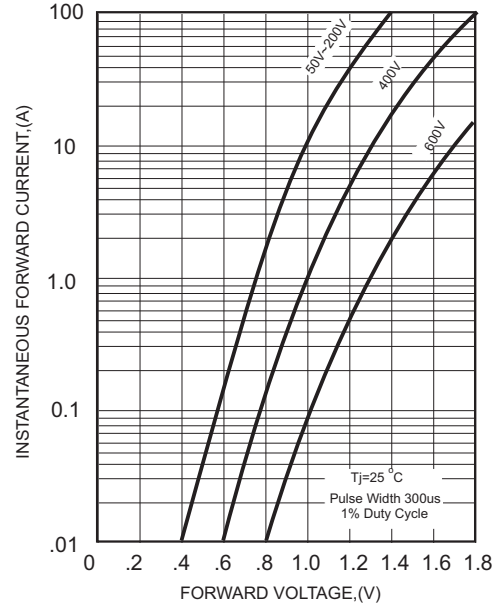


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

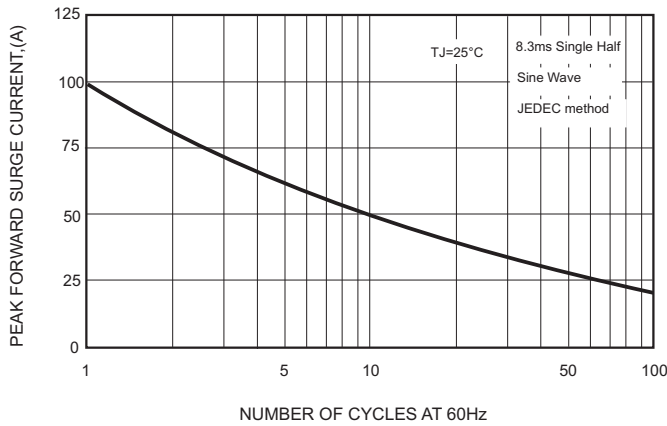


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

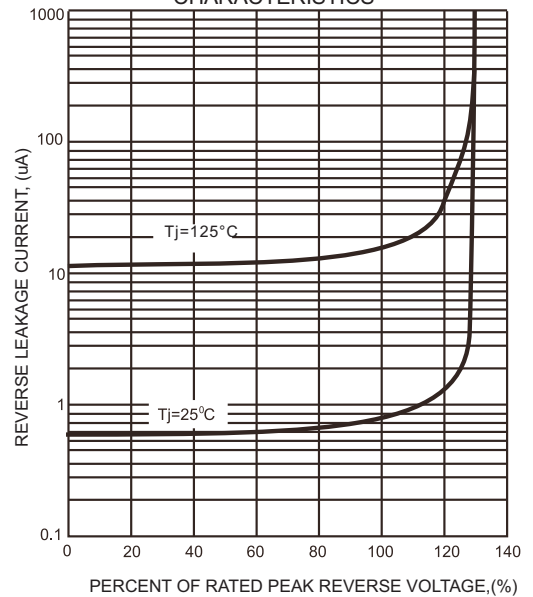
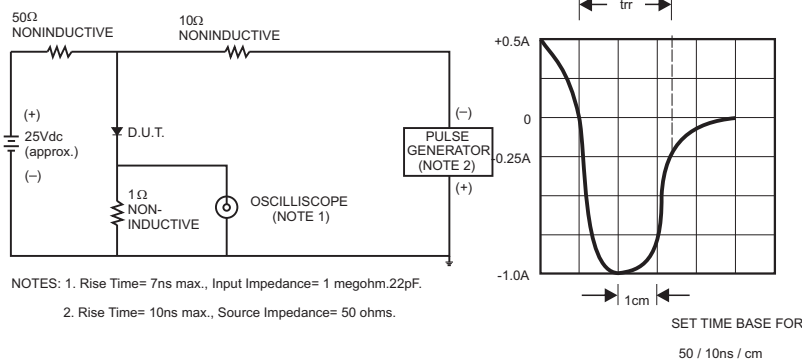
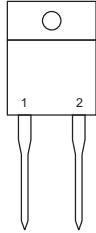
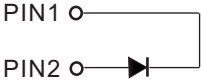


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR810F	MUR810F
MUR820F	MUR820F
MUR840F	MUR840F
MUR860F	MUR860F