

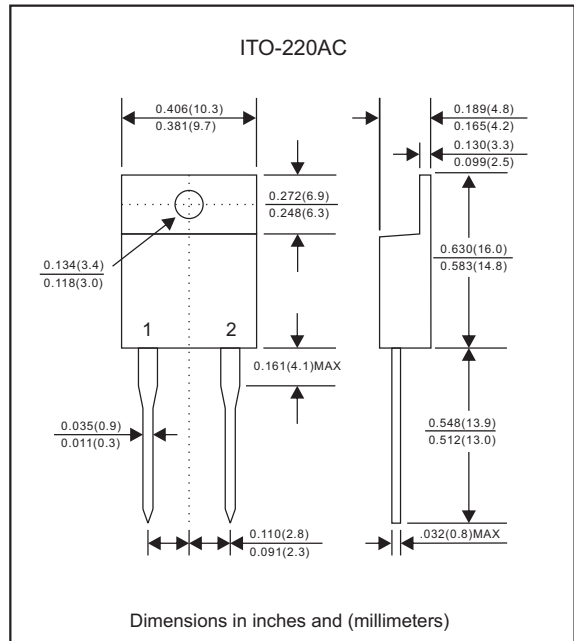
### Features

- 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	MUR1520F	MUR1540F	MUR1560F	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward rectified current	$I_O$	15			A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	$I_{FSM}$	200			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	MUR1520F	MUR1540F	MUR1560F	UNIT
Maximum forward voltage at $I_F=15\text{A}$	$V_F$	0.98	1.30	1.70	V
Maximum DC reverse current at rated DC blocking voltage	$I_R$		5.0 500		$\mu\text{A}$ $\mu\text{A}$
Maximum reverse recovery time (Note 1)	$t_{rr}$		50		ns

### Thermal Characteristics

PARAMETER	SYMBOLS	MUR1520F	MUR1540F	MUR1560F	UNIT
Typical thermal resistance junction to case	$R_{\theta JC}$	1.5			$^\circ\text{C}/\text{W}$

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 (MUR1520F THRU MUR1560F)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

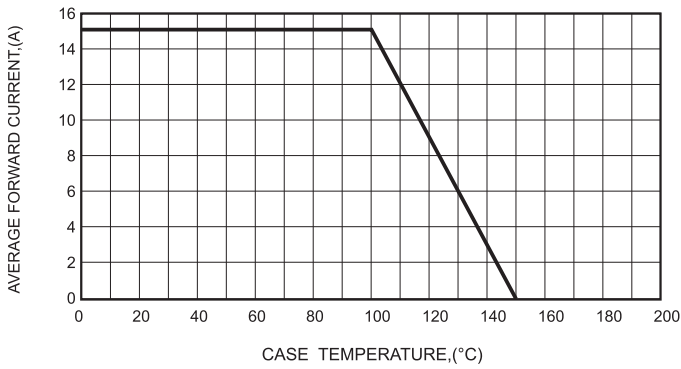


FIG.2-TYPICAL FORWARD

CHARACTERISTICS

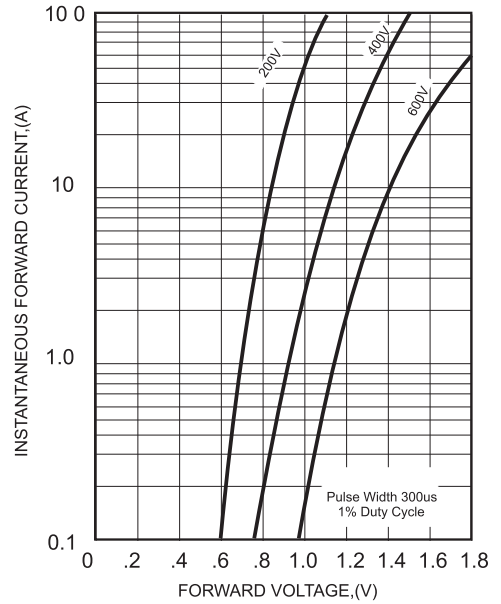


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

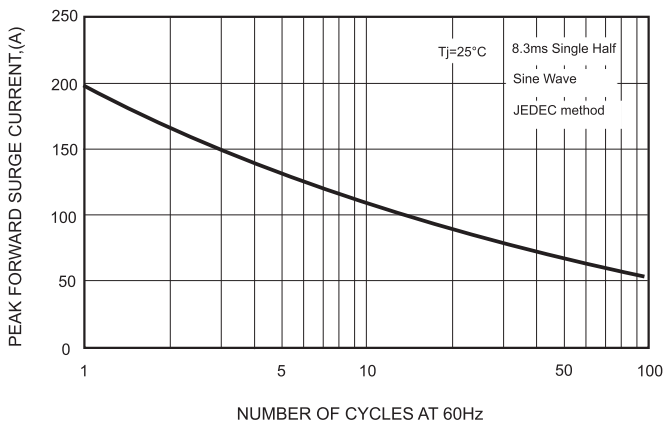


FIG.4 - TYPICAL REVERSE

CHARACTERISTICS

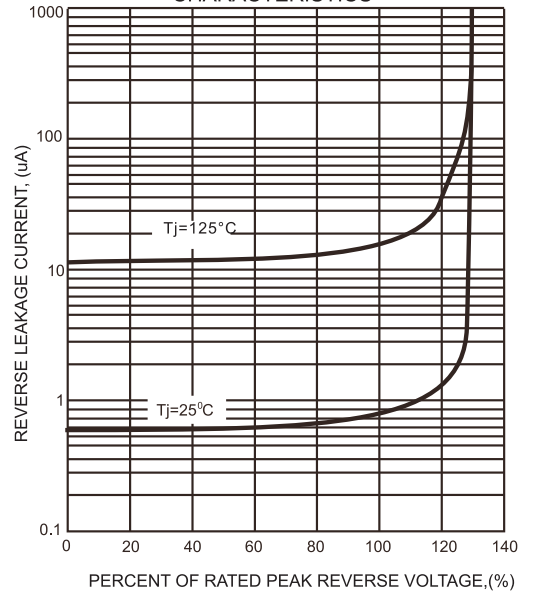
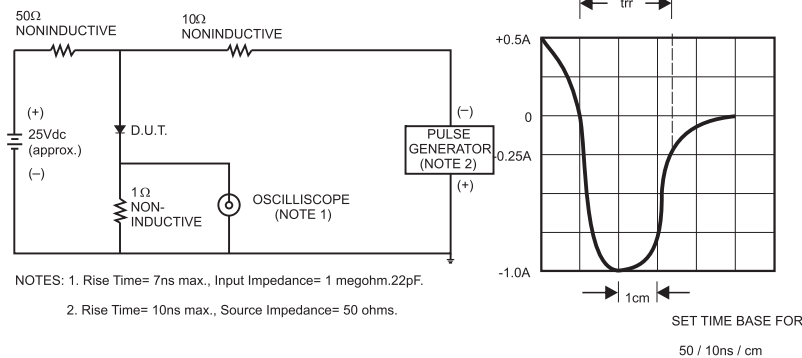


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE

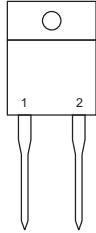
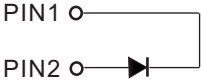
RECOVERY TIME CHARACTERISTICS



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
MUR1510F	MUR1510F
MUR1520F	MUR1520F
MUR1540F	MUR1540F
MUR1560F	MUR1560F