MUR3020FCT THRU MUR3060FCT

30A Super Fast Recovery Rectifiers - 200V-600V

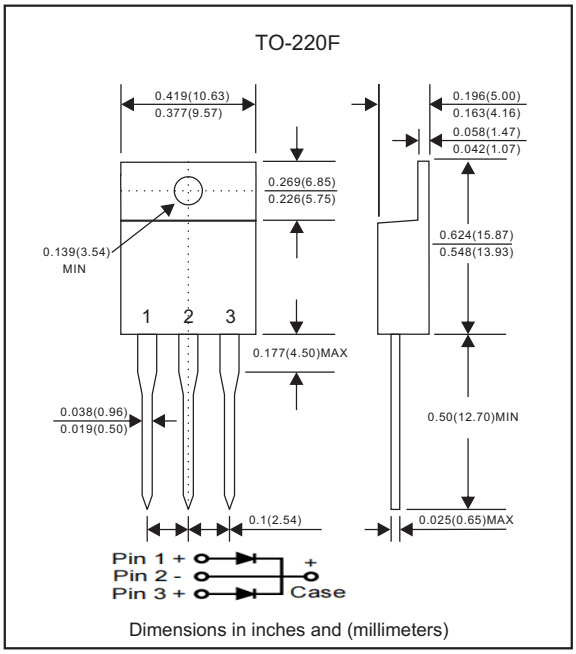
Features

- Dual rectifier construction, positive centetap, offer 15.0A Half wave and 30.0A full wave rectification.
- 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-220F molded plastic body over passivated chip
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity: As marked
- Mounting Position : Any
- Weight : Approximated 1.70 gram

Package outline



Dimensions in inches and (millimeters)

Maximum ratings (AT T_A=25°C unless otherwise noted)

PARAMETER	SYMBOLS	MUR3020FCT	MUR3040FCT	MUR3060FCT	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	30			A
Peak forward surge current 8.3ms single half sine-wave(JEDEC method)	I_{FSM}	150			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°C unless otherwise noted)

PARAMETER	SYMBOLS	MUR3020FCT	MUR3040FCT	MUR3060FCT	UNIT
Maximum forward voltage per leg at IF=15A	V_F	1.05	1.35	1.70	V
Maximum reverse recovery time per leg (Note 1)	trr	25	50		ns
Maximum DC reverse current at TJ =25°C at rated DC blocking voltage per leg at TJ =125°C	I_R	10 500			uA uA

Thermal Characteristics

PARAMETER	SYMBOLS	MUR3020FCT	MUR3040FCT	MUR3060FCT	UNIT
Typical thermal resistance junction to case per leg	$R_{\theta JC}$	1.5			°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(MUR3020FCT THRU MUR3060FCT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

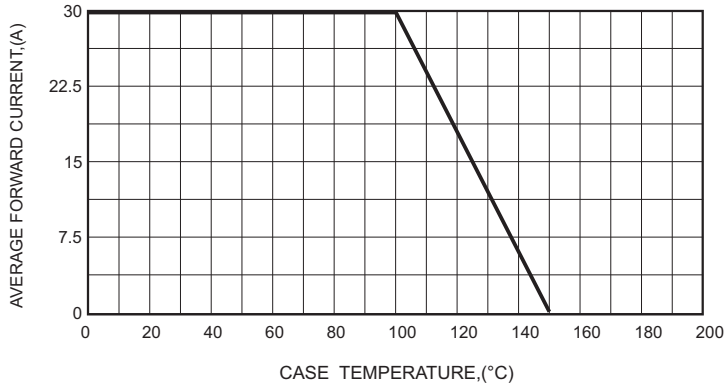


FIG.2-TYPICAL FORWARD CHARACTERISTICS

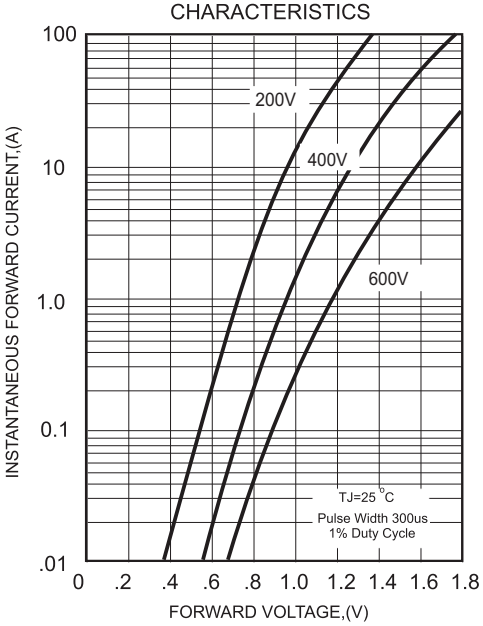


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

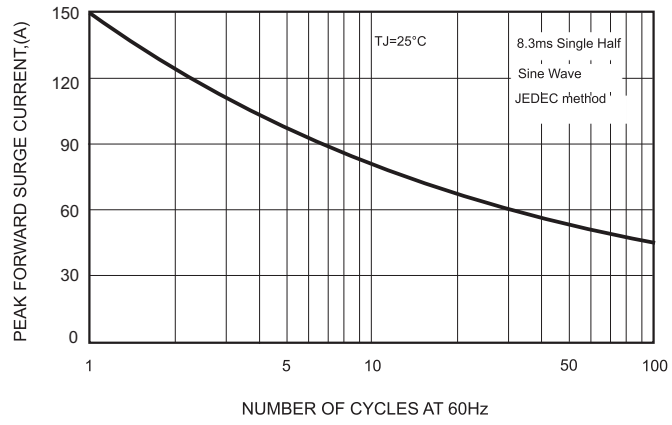


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

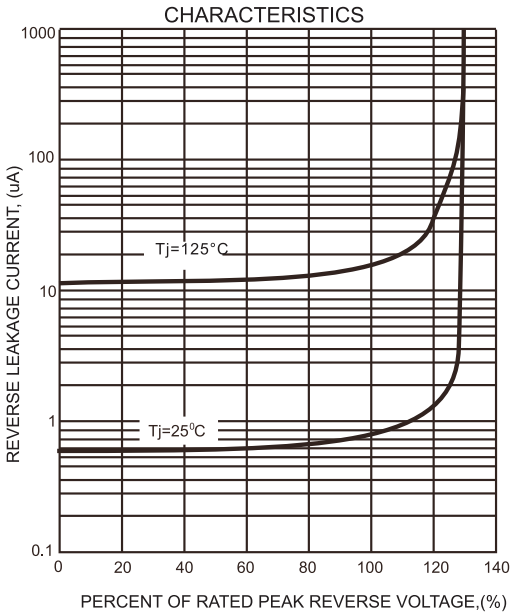
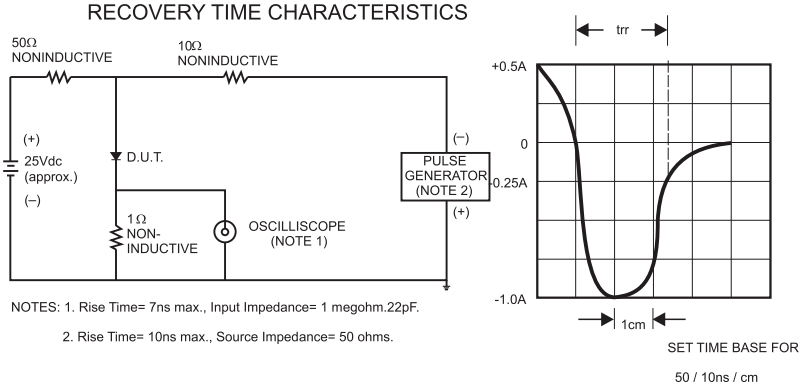


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

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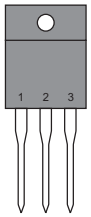
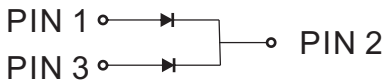
Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

Marking

Type number	Marking code
MURF3020CT	MURF3020CT
MURF3040CT	MURF3040CT
MURF3060CT	MURF3060CT

Tube packing

PACKAGE	TUBE (pcs)	TUBE SIZE (m/m)	BOX (pcs)	INNER BOX (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
ITO-220AB	50	525*32*7.5	1,000	555*150*40	580*230*175	5,000	15.0