MUR(F/W/D)10 series

Super Fast Rectifiers

Feaures

- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AC 1.80 grams
  ITO-220AC 1.65 grams
  TO-262AC 1.45 grams
  TO-263(D^2PAK) 1.35 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

RATINGS	SYMBOL	MUR (F/W/D) 1020	MUR (F/W/D) 1030	MUR (F/W/D) 1040	MUR (F/W/D) 1050	MUR (F/W/D) 1060	MUR (F) 1070	MUR (F) 1080	UNIT
Maximum repetitive reverse voltage	V_{RRM}	200	300	400	500	600	700	800	V
Maximum RMS voltage	V_{RMS}	140	210	280	350	420	490	560	V
Maximum DC blocking voltage	V_{DC}	200	300	400	500	600	700	800	V
Maximum average forward current	I_{AV}	10							A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Typical thermal resistance per diode(Note 1) TO-220AC ITO-220AC TO-262AC TO-263(D^2PAK)	$R_{\theta-JC}$	2.5 4.0 2.5 2.5							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C
CHARACTERISTICS	SYMBOL	MUR (F/W/D) 1020	MUR (F/W/D) 1030	MUR (F/W/D) 1040	MUR (F/W/D) 1050	MUR (F/W/D) 1060	MUR (F) 1070	MUR (F) 1080	UNIT
Typical forward voltage per leg at 10A	V_F	1.00	1.30		1.70		2.80		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C TJ=125°C	I_R	5 250							μA
Typical reverse recovery time(Note 2)	T_{RR}	35							nS

Notes: 1. Thermal resistance from junction to case.
2. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

Rating and Characteristic Curves (TA = 25°C Unless otherwise noted)

MUR10 series

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

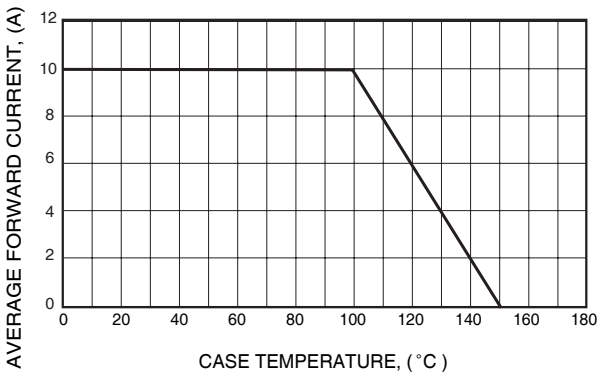


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

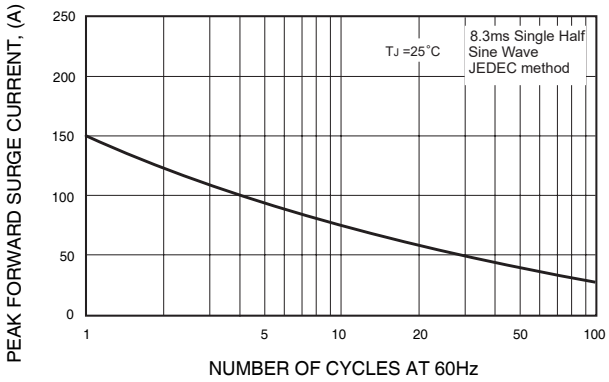


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

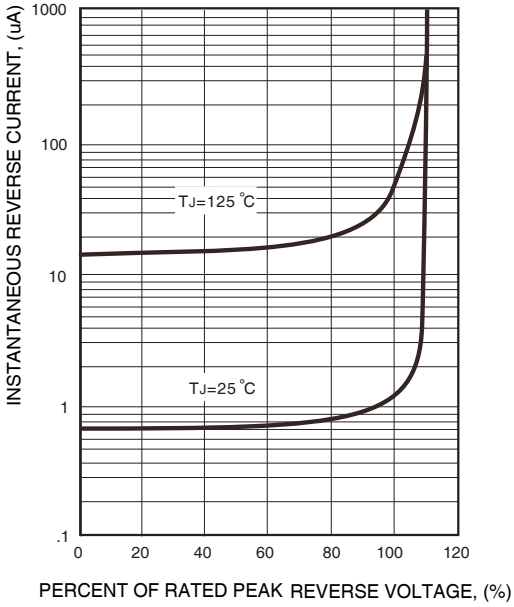


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

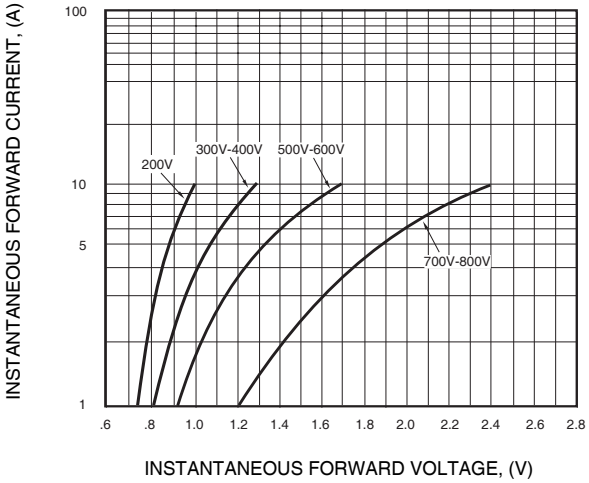
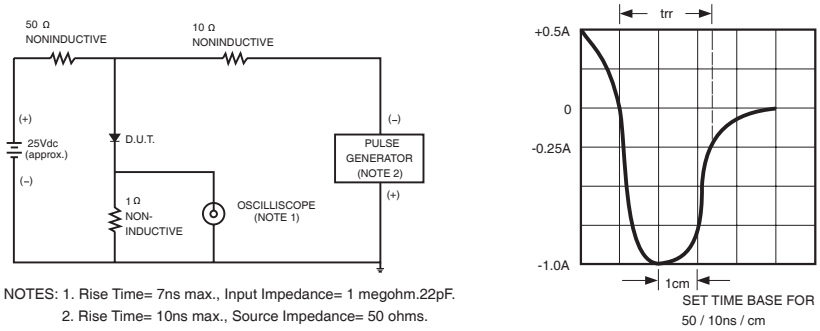
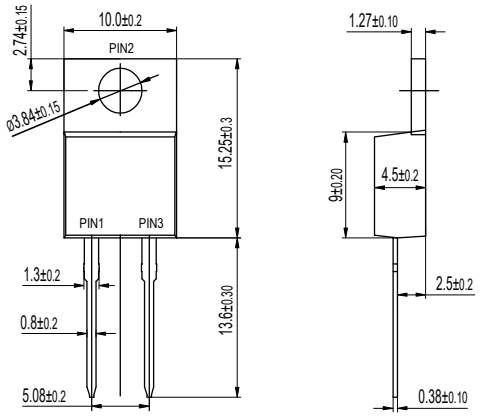


FIG.6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

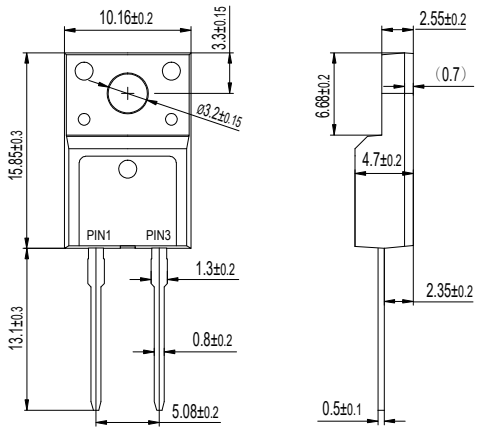


NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

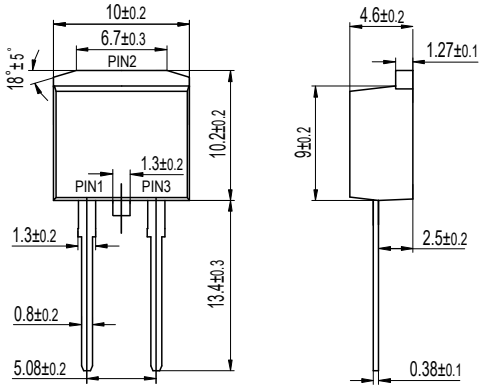
Package outline



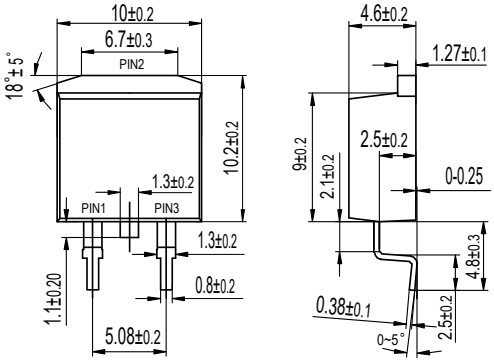
TO-220AC
MUR10XX



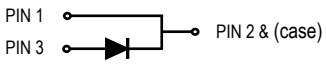
ITO-220AC
MURF10XX



TO-262AC
MURW10XX



TO-263(D^{2}PAK)
MURD10XX



Dimensions in millimeters