

Features

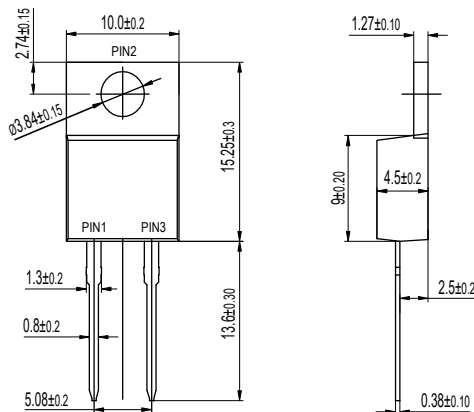
- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

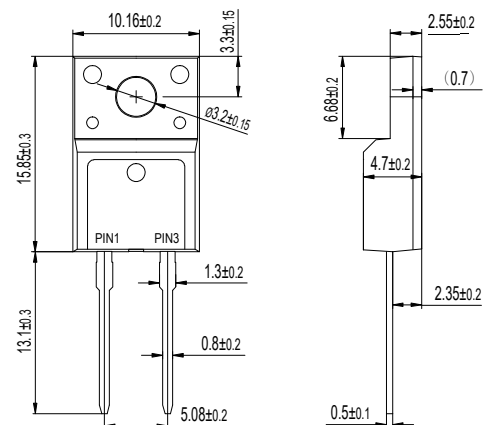
- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AC 1.80 grams
ITO-220AC 1.65 grams
TO-262AC 1.45 grams
TO-263(D²PAK) 1.35 grams

Package outline

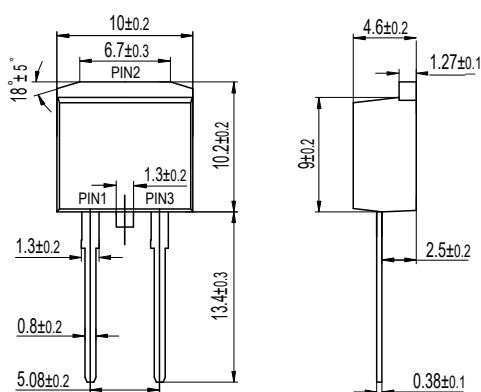
Dimensions in millimeters



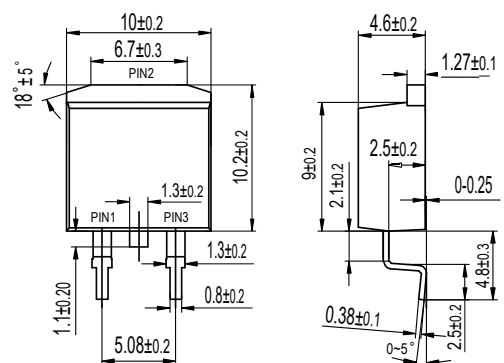
TO-220AC
MUR15XX



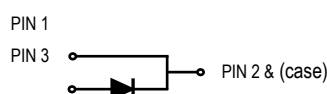
ITO-220AC
MUR15XXF



TO-262ACMU
R15XX
W



TO-263(D²PAK)
MUR15XXD



Super Fast Rectifiers

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

RATINGS	SYMBOL	MUR 1502 1502F 1502W 1502D	MUR 1503 1503F 1503W 1503D	MUR 1504 1504F 1504W 1504D	MUR 1506 1506F 1506W 1506D	MUR 1507 1507F	MUR 1508 1508F	UNIT
Maximum repetitive reverse voltage	VRRM	200	300	400	600	700	800	V
Maximum RMS voltage	VRMS	140	210	280	420	490	560	V
Maximum DC blocking voltage	VDC	200	300	400	600	700	800	V
Maximum average forward current	IAV	15						A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load	IFSM	250						A
Typical thermal resistance per diode(Note 1) TO-220AC ITO-220AC TO-262AC TO-263(D ² PAK)	Rθ-JC	2.5 4.0 2.5 2.5						°C/W
Operating junction temperature range	TJ	-55 to +150						°C
Storage temperature range	TSTG	-55 to +150						°C
CHARACTERISTICS	SYMBOL	MUR 1502 1502F 1502W 1502D	MUR 1503 1503F 1503W 1503D	MUR 1504 1504F 1504W 1504D	MUR 1506 1506F 1506W 1506D	MUR 1507 1507F	MUR 1508 1508F	UNIT
Typical forward voltage per leg at 15A	VF	1.00	1.30		1.80	2.60		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C TJ=125°C	IR	5 250						μA
Typical reverse recovery time(Note 2)	TRR	35						nS

Notes: 1. Thermal resistance from junction to case.

2. Test conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

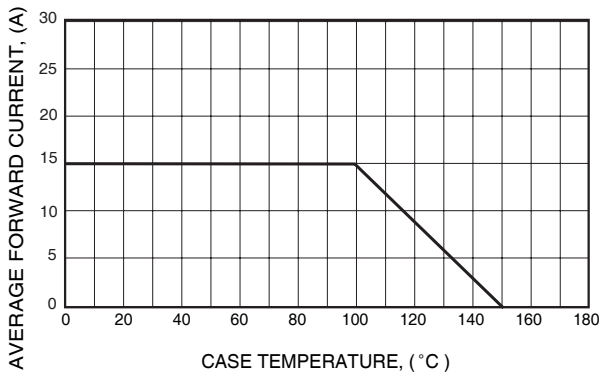


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

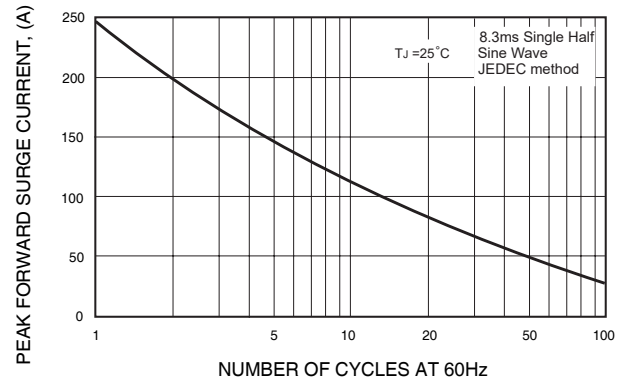


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

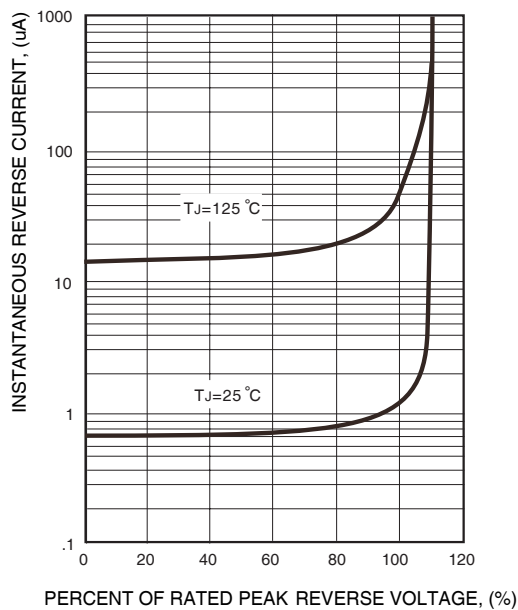


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

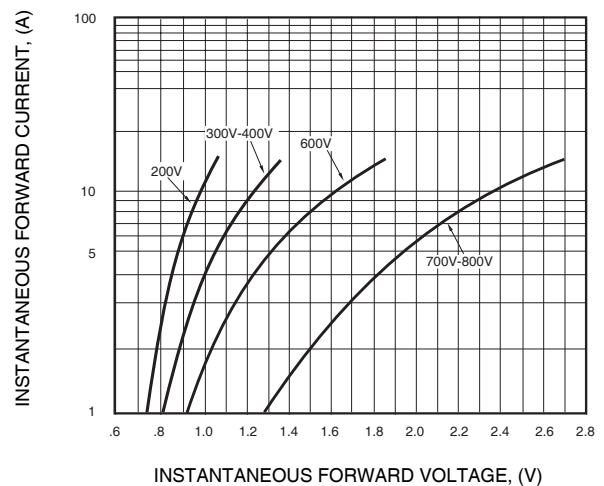
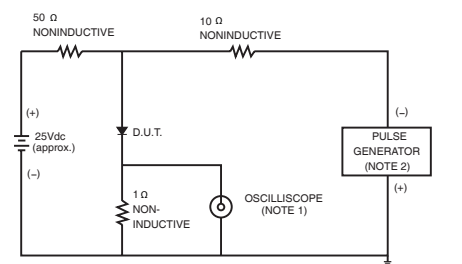


FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

