



**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(D<sup>2</sup>PAK) 1.35 grams

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

RATINGS	SYMBOL	MUR	MUR	MUR	MUR	MUR	MUR	UNIT
		1520	1530	1540	1560	1570	1580	
		1520F	1530F	1540F	1560F	1570F	1580F	
		1520W	1530W	1540W	1560W			
		1520D	1530D	1540D	1560D			
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	I <sub>AV</sub>	15						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	250						A
Typical thermal resistance per diode (Note 1)	R <sub>θ-JC</sub>	TO-220AC		2.5				°C/W
		ITO-220AC		4.0				
		TO-262AC		2.5				
		TO-263(D <sup>2</sup> PAK)		2.5				
Operating junction temperature range	T <sub>J</sub>	-55 to +150						°C
Storage temperature range	T <sub>STG</sub>	-55 to +150						°C
CHARACTERISTICS	SYMBOL	MUR	MUR	MUR	MUR	MUR	MUR	UNIT
		1520	1530	1540	1560	1570	1580	
		1520F	1530F	1540F	1560F	1570F	1580F	
		1520W	1530W	1540W	1560W			
		1520D	1530D	1540D	1560D			
Typical forward voltage per leg at 15A	V <sub>F</sub>	1.00	1.30		1.80	2.60		V
Maximum average reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>J</sub> =25°C		5				μA
		T <sub>J</sub> =125°C		250				
Typical reverse recovery time (Note 2)	T <sub>RR</sub>	35						nS

Notes: 1. Thermal resistance from junction to case.  
2. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

# Ratings And Characteristic Curves

## MUR15 series

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

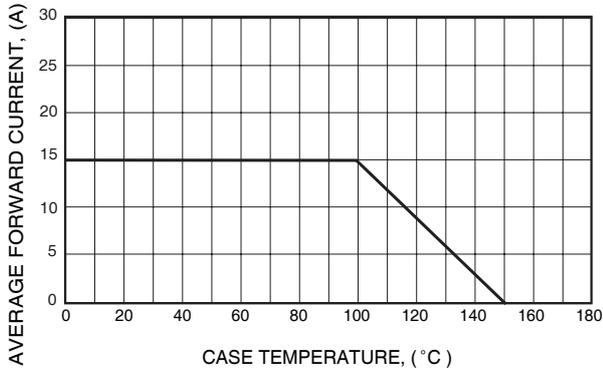


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

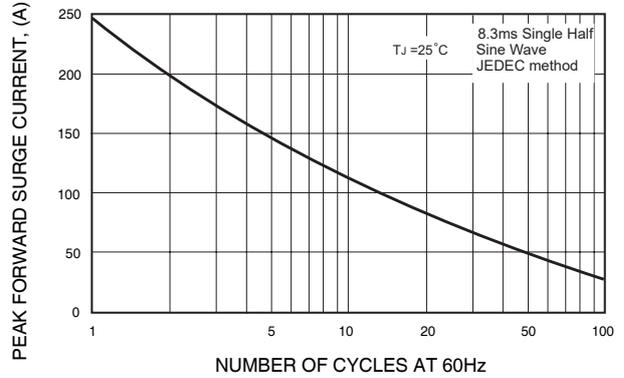


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

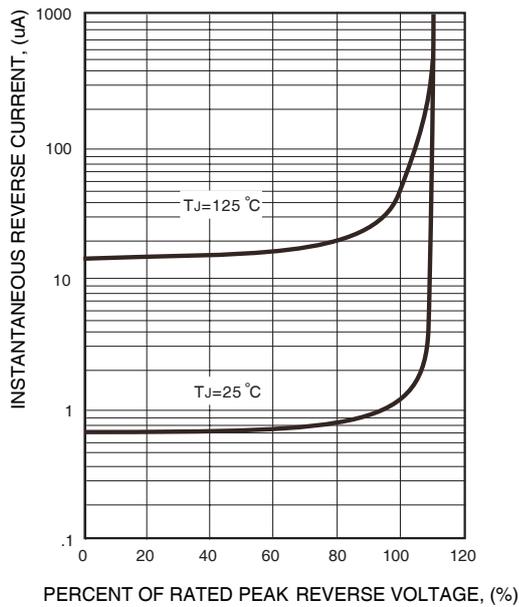


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

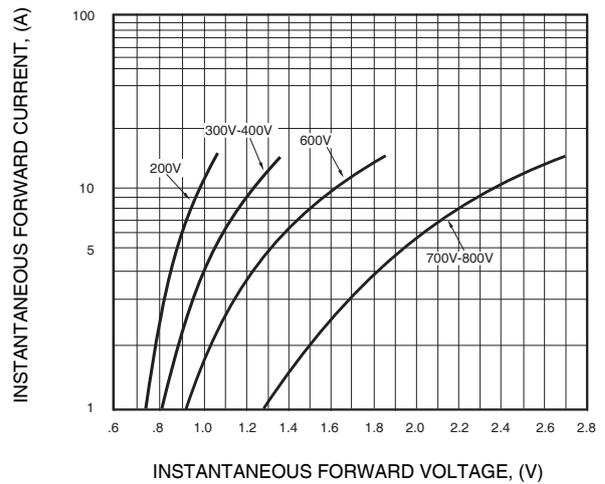
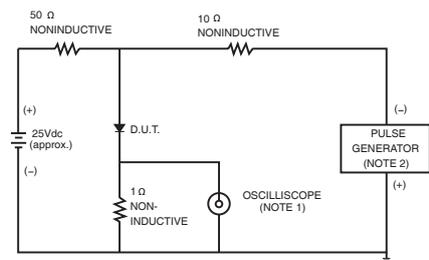
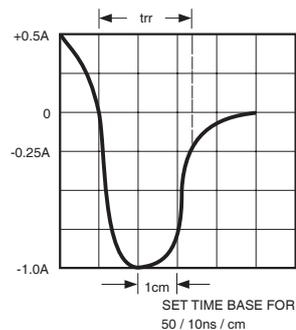


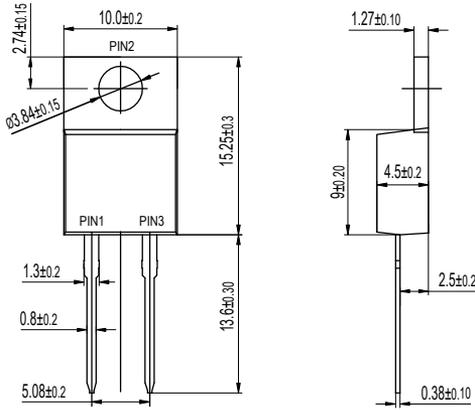
FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



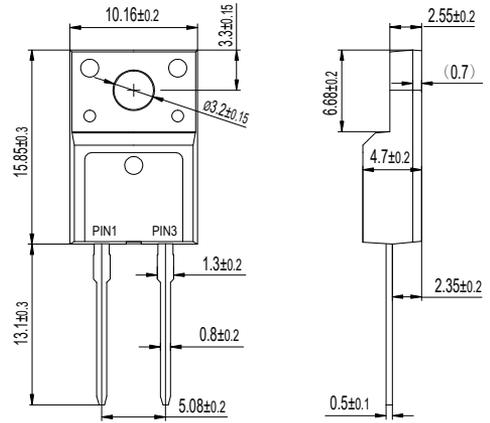
NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



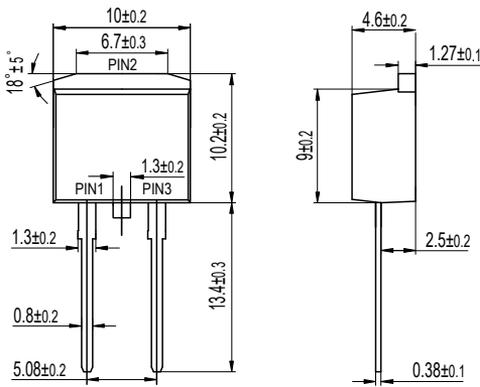
# Package outline



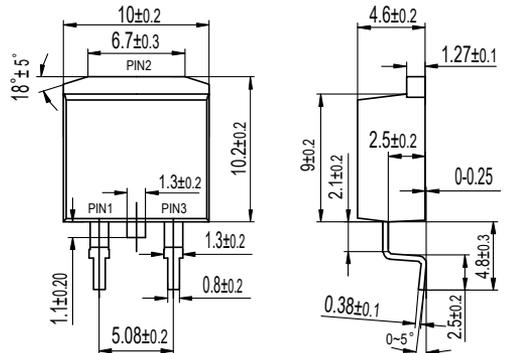
TO-220AC  
MUR15XX



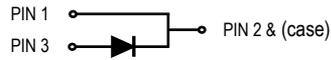
ITO-220AC  
MUR15XXF



TO-262AC  
MUR15XX  
W



TO-263(D<sup>2</sup>PAK)  
MUR15XXD



Dimensions in millimeters