

**Features**

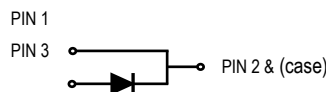
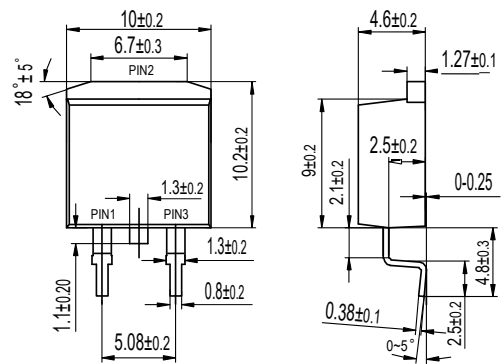
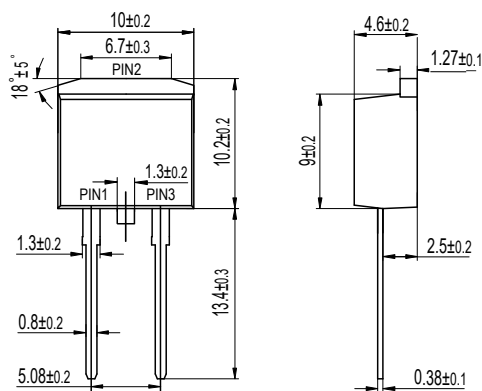
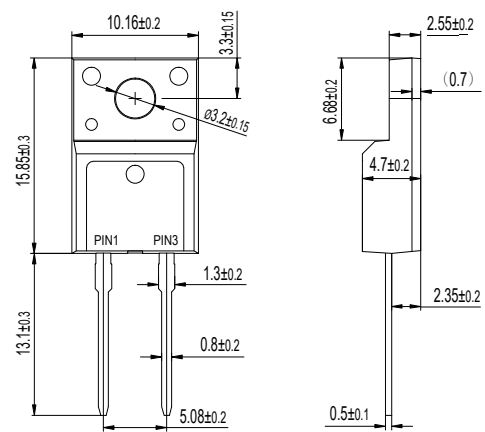
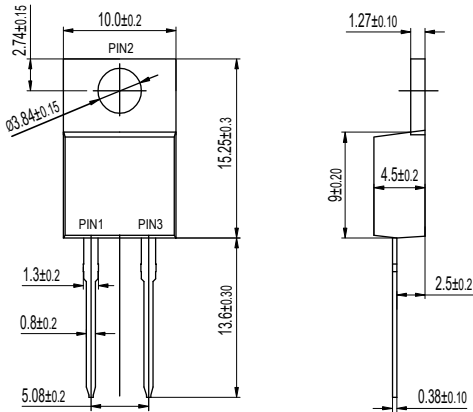
- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

**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

**Package outline**

**Dimensions in millimeters**



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

RATINGS	SYMBOL	MUR	MUR	MUR	MUR	MUR	MUR	MUR	UNIT	
		1020	1030	1040	1050	1060	1070	1080		
		1020F	1030F	1040F	1050F	1060F	1070F	1080F		
		1020W	1030W	1040W	1050W	1060W				
		1020D	1030D	1040D	1050D	1060D				
Maximum repetitive reverse voltage	VRRM	200	300	400	500	600	700	800	V	
Maximum RMS voltage	VRMS	140	210	280	350	420	490	560	V	
Maximum DC blocking voltage	VDC	200	300	400	500	600	700	800	V	
Maximum average forward current	I <sub>AV</sub>	10							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150							A	
Typical thermal resistance per diode (Note 1)	R <sub>θ-JC</sub>	TO-220AC		2.5		ITO-220AC		4.0		°C/W
		TO-262AC		2.5						
		TO-263(D <sup>2</sup> PAK)		2.5						
				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	MUR	UNIT	
		1020	1030	1040	1050	1060	1070	1080		
		1020F	1030F	1040F	1050F	1060F	1070F	1080F		
		1020W	1030W	1040W	1050W	1060W				
		1020D	1030D	1040D	1050D	1060D				
Typical forward voltage per leg at 10A	V <sub>F</sub>	1.00	1.30		1.70		2.80		V	
Maximum average reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>J</sub> =25°C		5		T <sub>J</sub> =125°C		250		μA
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.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

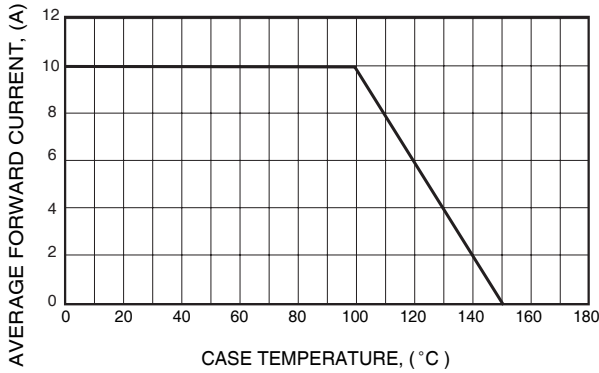


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

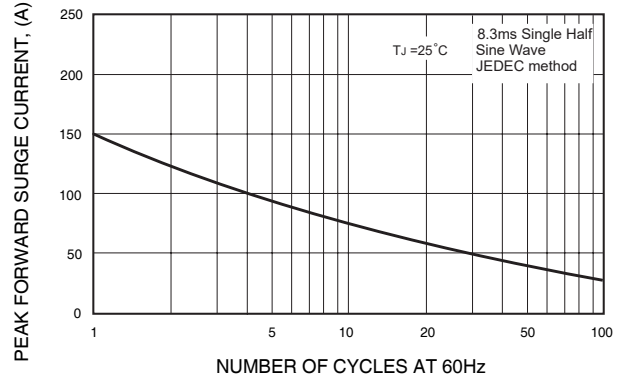


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

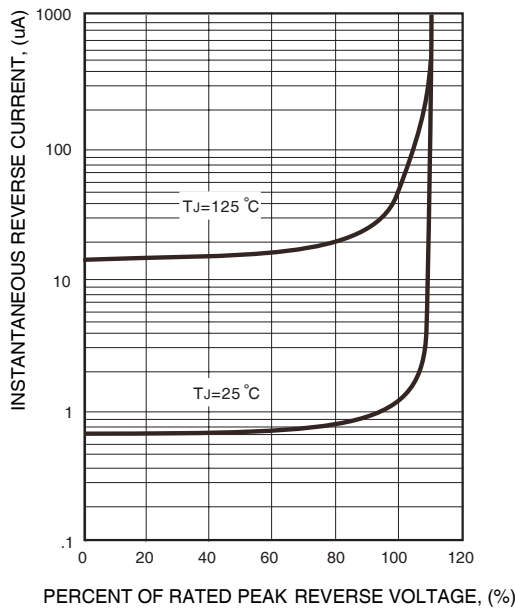


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

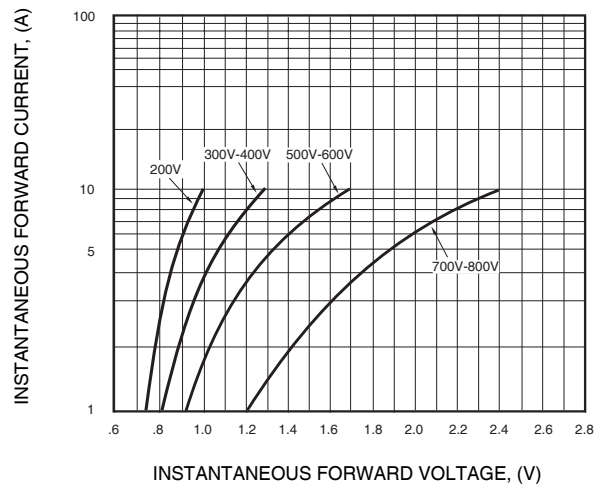
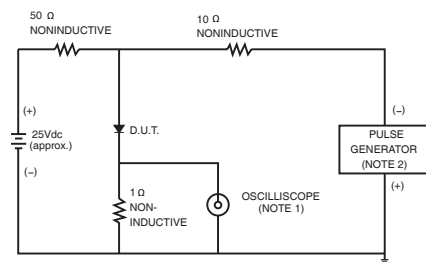


FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

