

MBR1040F/W/D THRU MBR10200F/W/D Series Schottky Barrier Rectifiers

Features

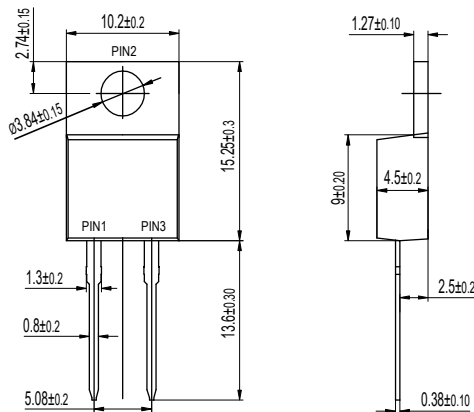
- High efficiency operation
- Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

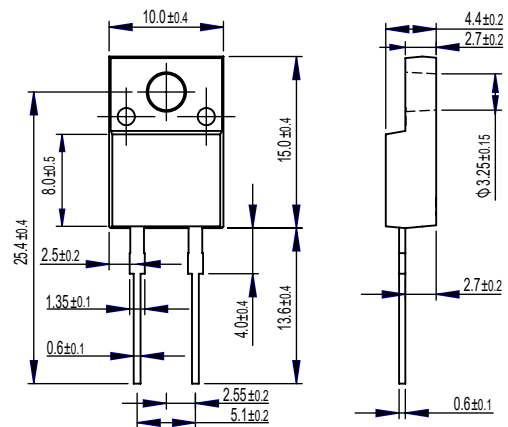
- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AC 1.80 grams
ITO-220AC 1.65 grams
TO-262AC 1.45 grams
TO-263(D²PAK) 1.35 grams

Package outline

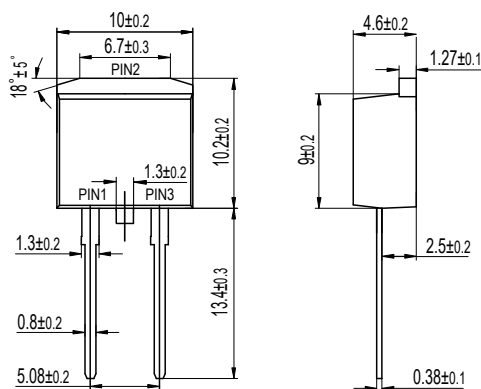
Dimensions in millimeters



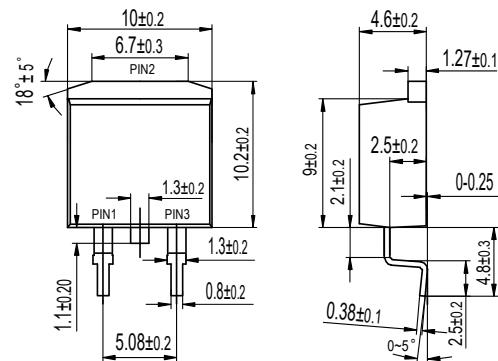
TO-220AC
MBR10XX



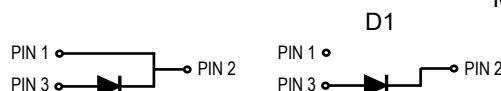
ITO-220AC
MBR10XXF



TO-262AC
MBR10XXW



TO-263(D²PAK)
MBR10XXD/D1



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

RATINGS	SYMBOL	MBR 1040 1040F 1040W 1040D	MBR 1045 1045F 1045W 1045D	MBR 1060 1060F 1060W 1060D	MBR 10100 10100F 10100W 10100D	MBR 10150 10150F 10150W 10150D	MBR 10200 10200F 10200W 10200D	UNIT
Maximum repetitive reverse voltage	VRRM	40	45	60	100	150	200	V
Maximum RMS voltage	VRMS	28	32	42	70	105	140	V
Maximum DC blocking voltage	VDC	40	45	60	100	150	200	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}	125						A
Typical thermal resistance (Note 1) TO-220AC ITO-220AC TO-262AC TO-263(D ² PAK)	R _{θ-JC}	2.0 4.5 2.5 2.5						°C/W
Operating junction temperature range	T _J	-55 to +150				-55 to +175		°C
Storage temperature range	T _{STG}	-55 to +175						°C
CHARACTERISTICS	SYMBOL	MBR 1040 1040F 1040W 1040D	MBR 1045 1045F 1045W 1045D	MBR 1060 1060F 1060W 1060D	MBR 10100 10100F 10100W 10100D	MBR 10150 10150F 10150W 10150D	MBR 10200 10200F 10200W 10200D	UNIT
Maximum forward voltage per leg at I _F =10A	V _F	0.65		0.75	0.85	0.92		V
Maximum average reverse current at rated DC blocking voltage T _J =25°C T _J =125°C	I _R	0.10 15			0.01 5			mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

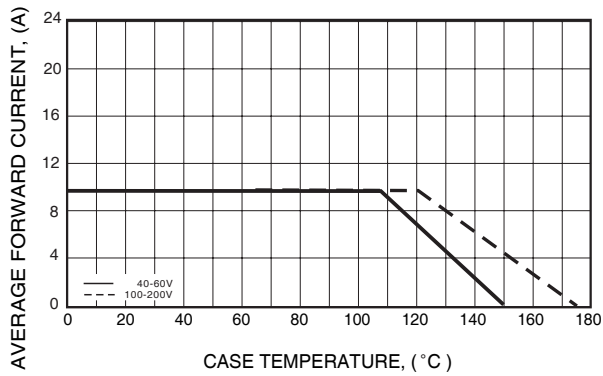


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

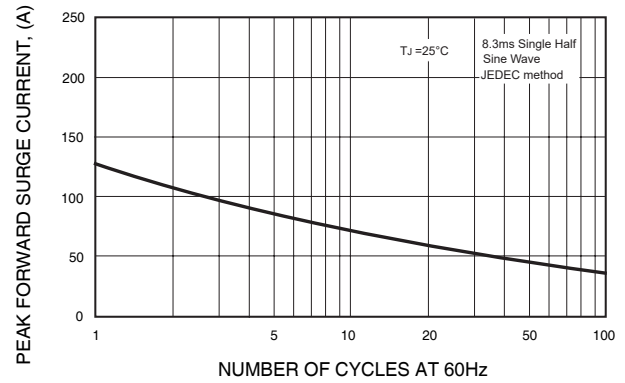


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

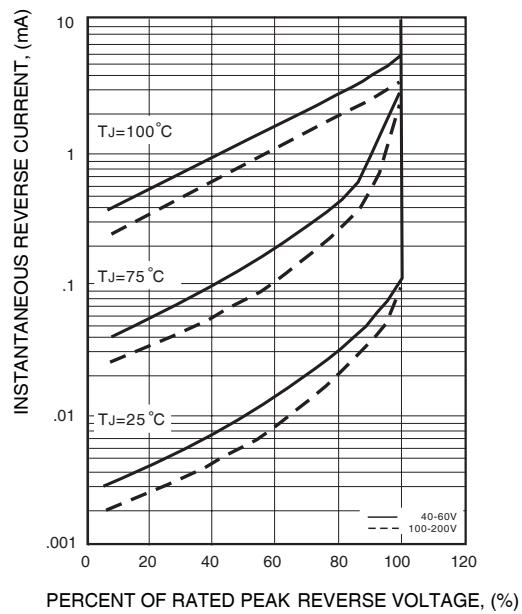


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

