

MBR20 Series Schottky Barrier Rectifiers

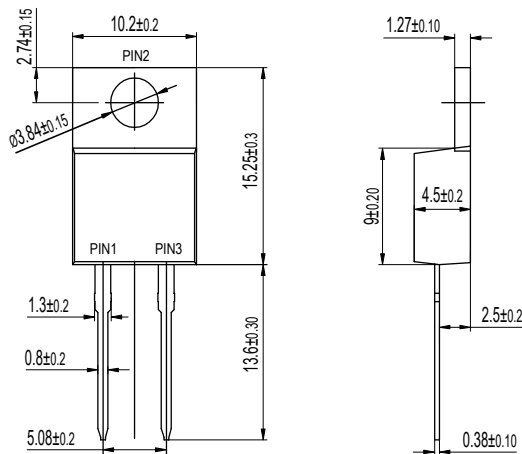
Features

- 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)

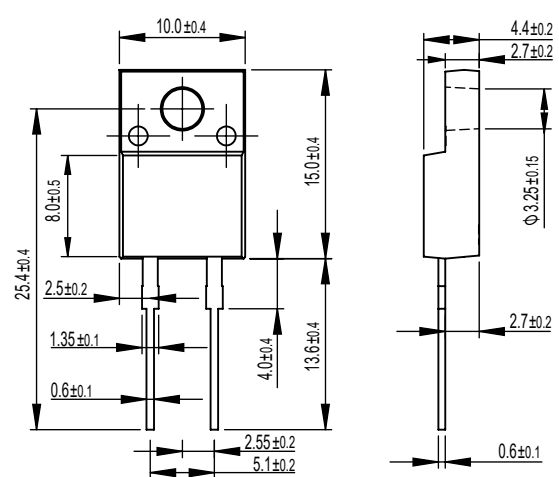
Mechanical Data

- 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

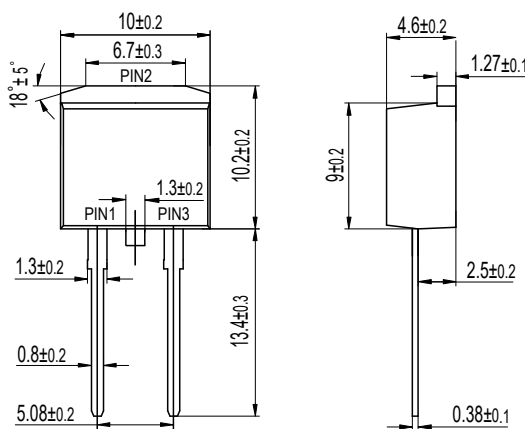
Package outline



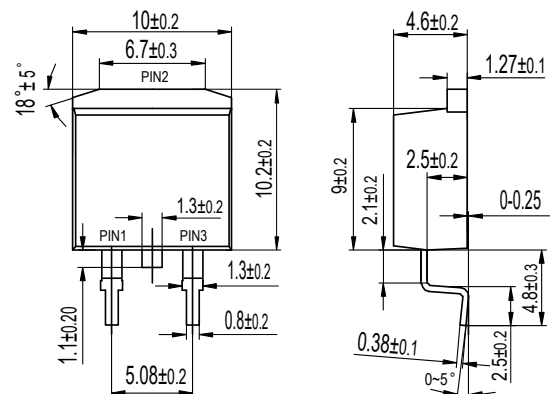
TO-220AC
MBR20XX



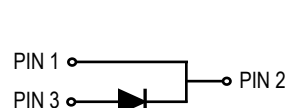
ITO-220AC
MBR20XXF



TO-262AC
MBR20XXW



TO-263(D²PAK)
MBR20XXD/D1



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

RATINGS	SYMBOL	MBR 2040 2040F 2040W 2040D/D1	MBR 2045 2045F 2045W 2045D/D1	MBR 2060 2060F 2060W 2060D/D1	MBR 20100 20100F 20100W 20100D/D1	MBR 20150 20150F 20150W 20150D/D1	MBR 20200 20200F 20200W 20200D/D1	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	IAV	20						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	200						A
Typical thermal resistance (Note 1) TO-220AC ITO-220AC TO-262AC TO-263(D ² PAK)	Rθ-JC	2.0 4.5 2.5 2.5						°C/W
Operating junction temperature range	TJ	-55 to +150				-55 to +175		°C
Storage temperature range	TSTG	-55 to +175						°C
CHARACTERISTICS	SYMBOL							UNIT
Maximum forward voltage per leg at IF=20A	VF	0.65		0.75	0.85	0.92		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C TJ=125°C	IR	0.10 15			0.01 5			mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

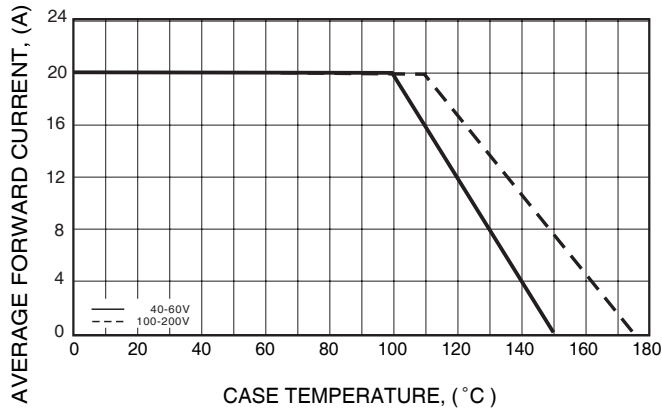


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

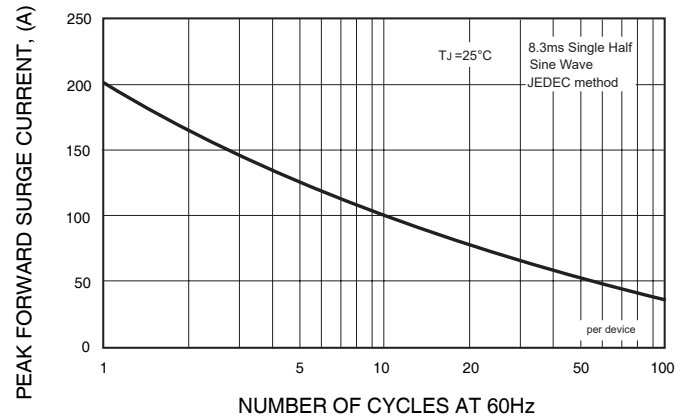


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

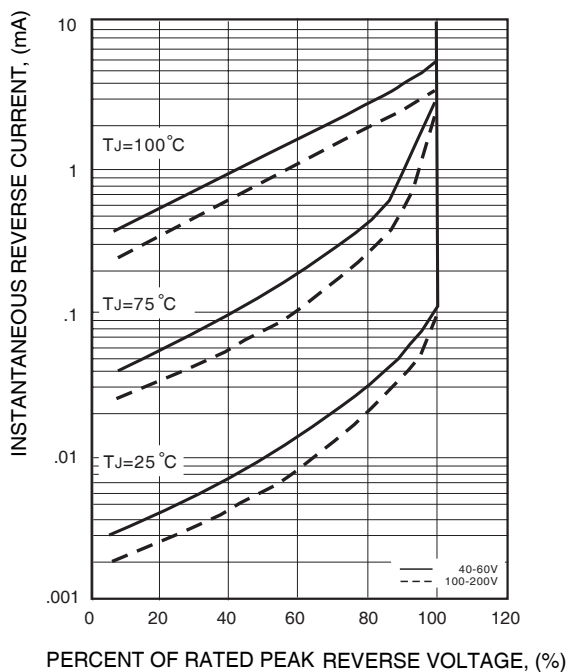


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

