

MBR20CT Series Schottky Barrier Rectifiers

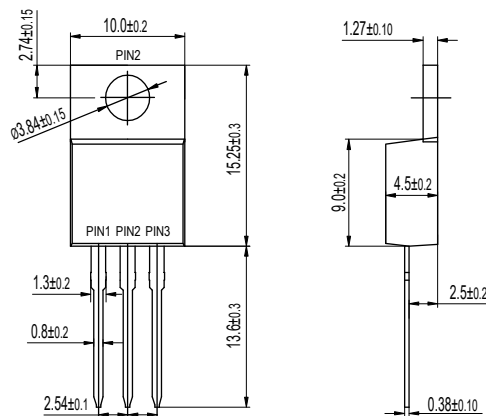
Features

- 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

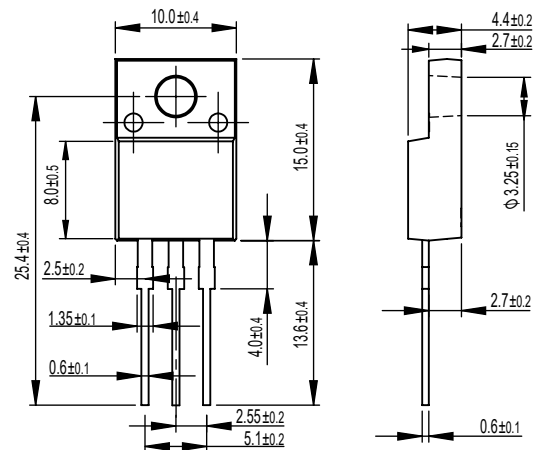
- Circuit figure: Common cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams
ITO-220AB 1.70 grams
TO-252 0.35grams
TO-263(D²PAK) 1.35 grams

Package outline

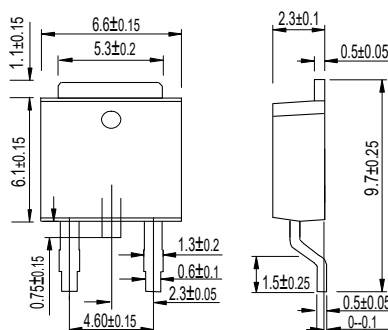


TO-220AB
MBR20XXCT

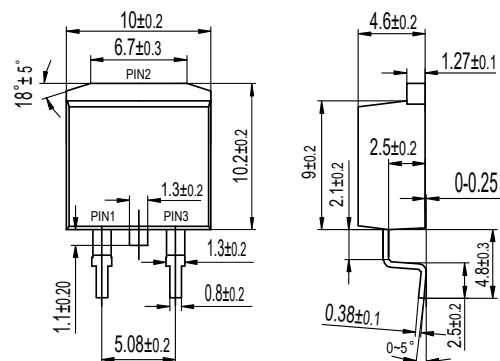
Dimensions in millimeters



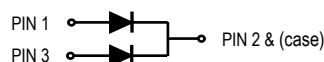
ITO-220AB
MBR20XXFCT



TO-252
MBR20XXBCT



TO-263(D²PAK)
MBR20XXDCT



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

RATINGS	SYMBOL	MBR 2040CT 2040FCT 2040BCT 2040DCT	MBR 2045CT 2045FCT 2045BCT 2045DCT	MBR 2060CT 2060FCT 2060BCT 2060DCT	MBR 20100CT 20100FCT 20100BCT 20100DCT	MBR 20150CT 20150FCT 20150BCT 20150DCT	MBR 20200CT 20200FCT 20200BCT 20200DCT	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 per device per diode	IAV	20 10						A
Peak forward surge current, 8 .3ms single half sine-wave superimposed on rated load	IFSM	220						A
Typical thermal resistance (Note 1)	TO-220AB ITO-220AB TO-252 TO-263(D ² PAK) Rθ-JC	2.5 4.5 3.5 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	MBR 2040CT 2040FCT 2040BCT 2040DCT	MBR 2045CT 2045FCT 2045BCT 2045DCT	MBR 2060CT 2060FCT 2060BCT 2060DCT	MBR 20100CT 20100FCT 20100BCT 20100DCT	MBR 20150CT 20150FCT 20150BCT 20150DCT	MBR 20200CT 20200FCT 20200BCT 20200DCT	UNIT
Maximum forward voltage per leg at IF=10A	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

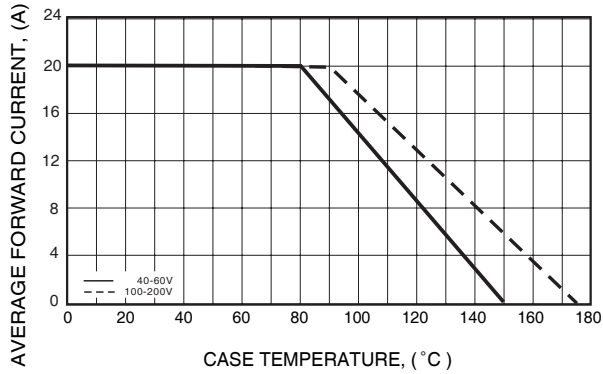


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

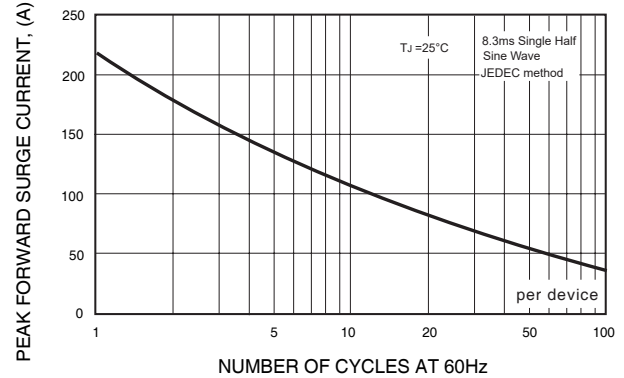


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

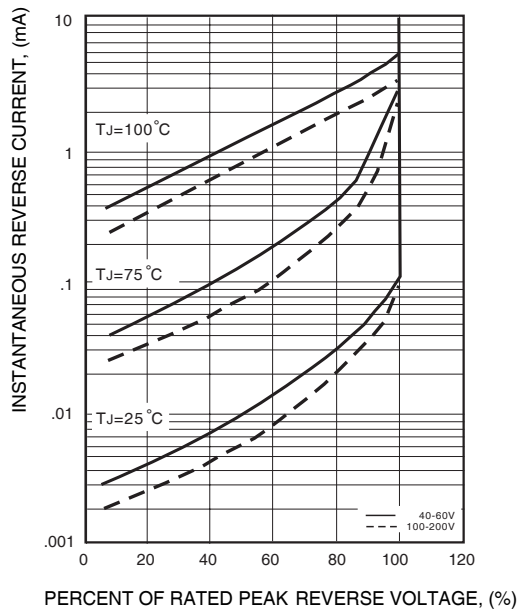


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

