

MBR30CT series

Schottky Barrier Rectifiers

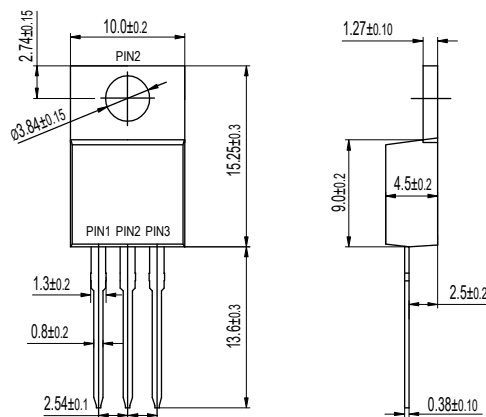
Features

- 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

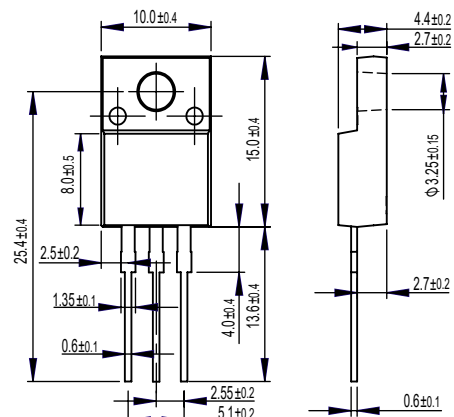
- Circuit figure: Common cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams
ITO-220AB 1.70 grams
TO-262AB 1.45 grams
TO-263(D²PAK) 1.35 grams

Package outline

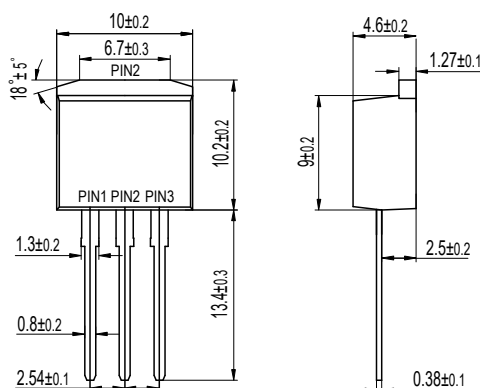


TO-220AB
MBR30XXCT

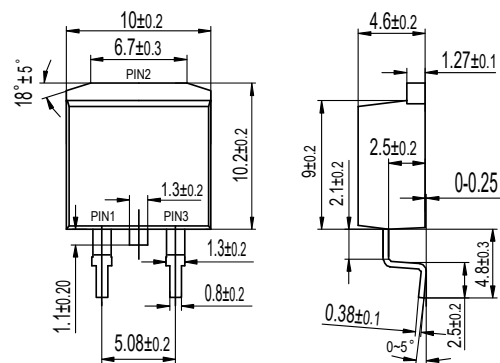
Dimensions in millimeters



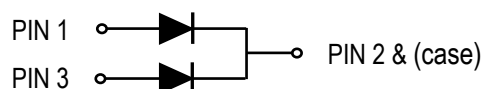
ITO-220AB
MBR30XXFCT



TO-262AB
MBR30XXWCT



TO-263(D²PAK)
MBR30XXDCT



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

RATINGS	SYMBOL	MBR 3040CT 3040FCT 3040WCT 3040DCT	MBR 3045CT 3045FCT 3045WCT 3045DCT	MBR 3060CT 3060FCT 3060WCT 3060DCT	MBR 30100CT 30100FCT 30100WCT 30100DCT	MBR 30150CT 30150FCT 30150WCT 30150DCT	MBR 30200CT 30200FCT 30200WCT 30200DCT	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	30 15						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	200						A
Typical thermal resistance (Note 1) TO-220AB ITO-220AB TO-262AB TO-263(D ² PAK)	R θ -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	MBR 3040CT 3040FCT 3040WCT 3040DCT	MBR 3045CT 3045FCT 3045WCT 3045DCT	MBR 3060CT 3060FCT 3060WCT 3060DCT	MBR 30100CT 30100FCT 30100WCT 30100DCT	MBR 30150CT 30150FCT 30150WCT 30150DCT	MBR 30200CT 30200FCT 30200WCT 30200DCT	UNIT
Maximum forward voltage per leg at IF=15A	VF	0.65		0.75	0.85	0.95		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C TJ=125°C	IR	0.10 15			0.01 8			mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

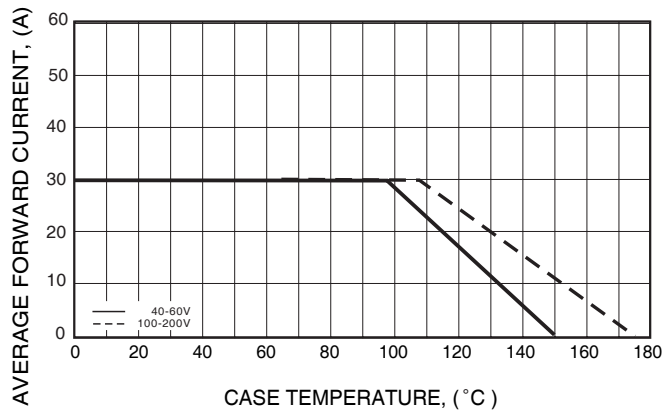


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

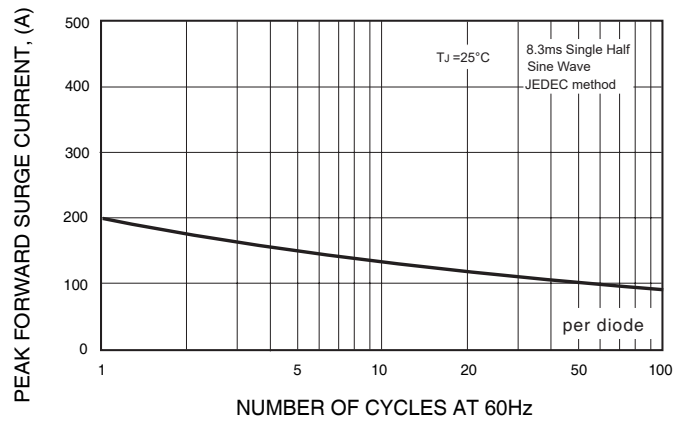


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

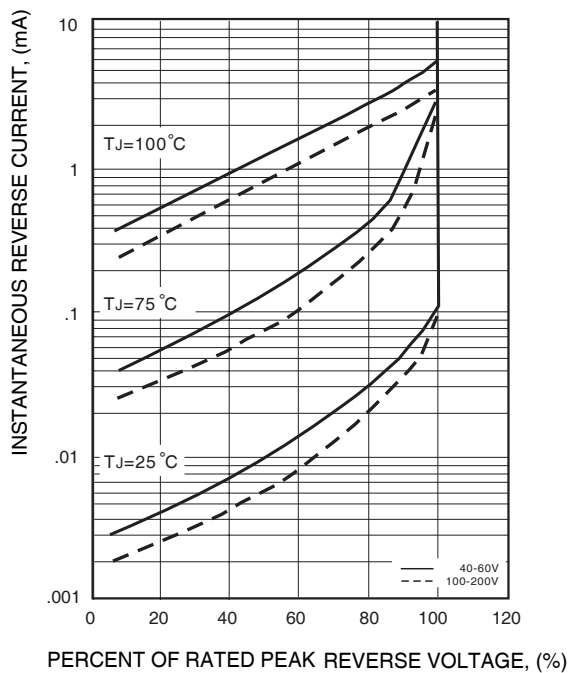


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

