

MBR60CT Series Schottky Barrier Rectifiers

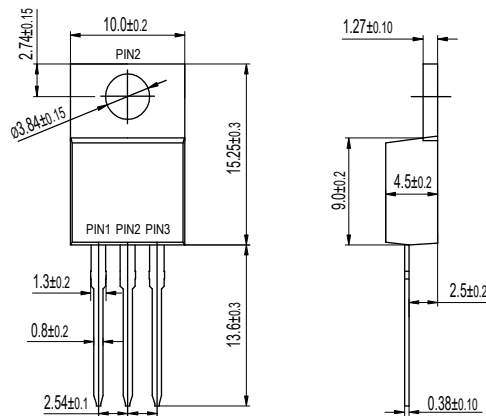
Features

- 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)

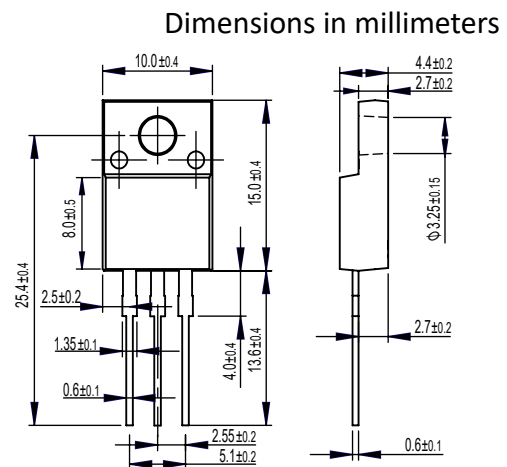
Mechanical Data

- 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

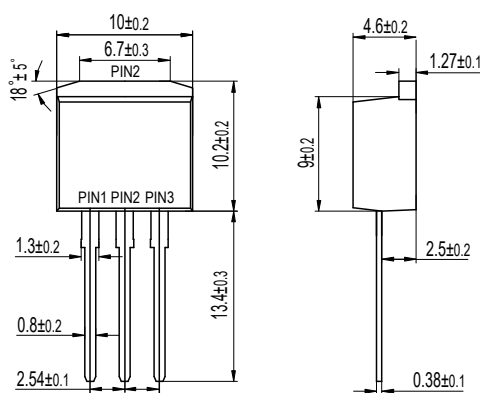
Package outline



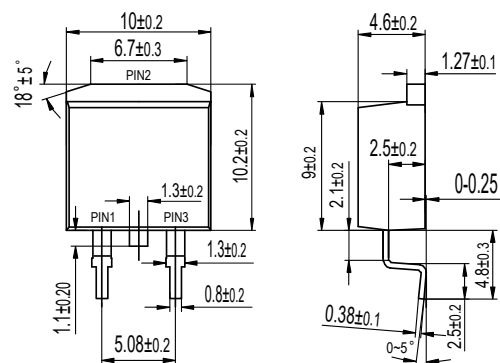
TO-220AB
MBR60XXCT



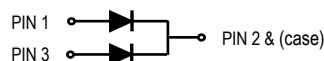
ITO-220AB
MBR60XXFCT



TO-262AB
MBR60XXWCT



TO-263(D²PAK)
MBR60XXDCT



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

RATINGS	SYMBOL	MBR 6040CT 6040FCT 6040WCT 6040DCT	MBR 6045CT 6045FCT 6045WCT 6045DCT	MBR 6060CT 6060FCT 6060WCT 6060DCT	MBR 60100CT 60100FCT 60100WCT 60100DCT	MBR 60150CT 60150FCT 60150WCT 60150DCT	MBR 60200CT 60200FCT 60200WCT 60200DCT	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	I _{AV}	60 30						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	580						A
Typical thermal resistance (Note 1) TO-220AB ITO-220AB TO-262AB TO-263(D ² PAK)	R _{θ-JC}	2.5 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 6040CT 6040FCT 6040WCT 6040DCT	MBR 6045CT 6045FCT 6045WCT 6045DCT	MBR 6060CT 6060FCT 6060WCT 6060DCT	MBR 60100CT 60100FCT 60100WCT 60100DCT	MBR 60150CT 60150FCT 60150WCT 60150DCT	MBR 60200CT 60200FCT 60200WCT 60200DCT	UNIT
Maximum forward voltage per leg at I _F =30A	V _F	0.65		0.75	0.85	0.95		V
Maximum average reverse current at rated DC blocking voltage T _J =25°C T _J =100°C	I _R	0.10 30			0.01 10			mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

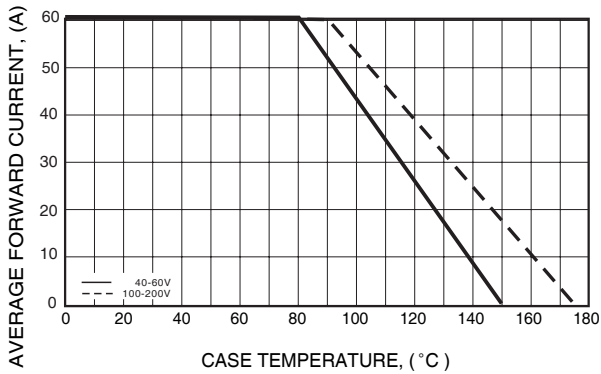


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

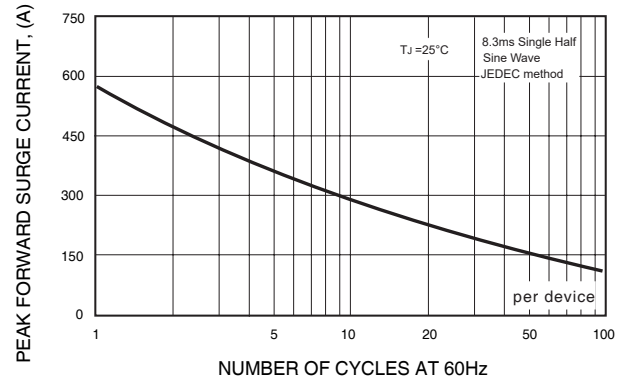


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

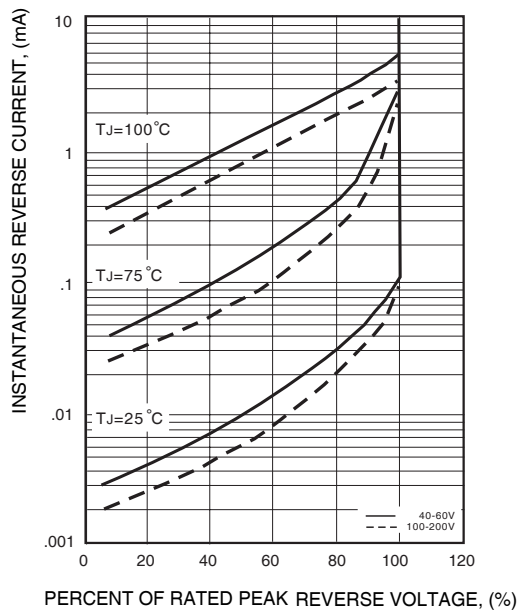


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

