

MBR40L200CT Series

LOW VF Schottky Barrier Rectifiers

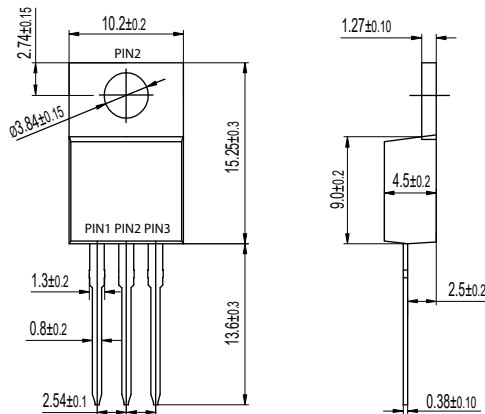
Features

- Ultra low vf
- 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

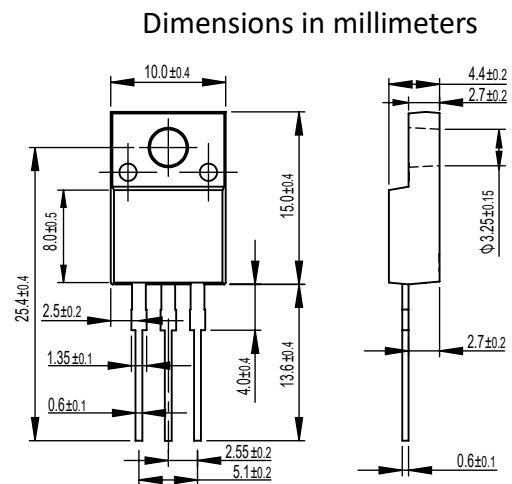
Mechanical Data

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 1.40 grams
TO-263(D²PAK) 1.35 grams

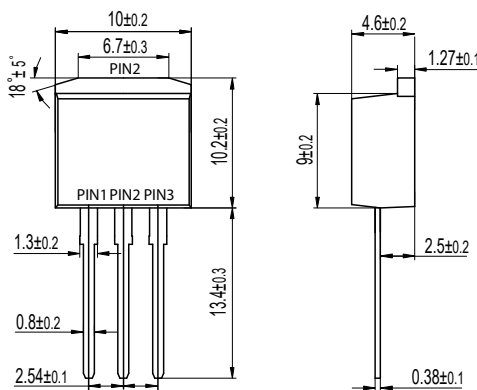
Package outline



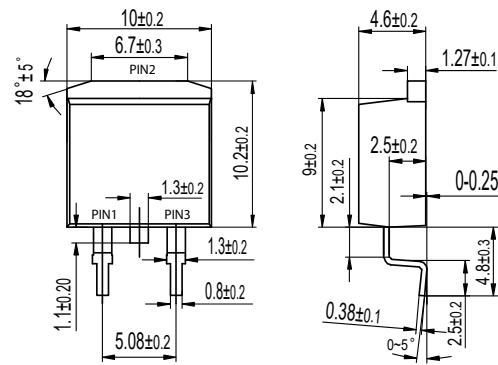
TO-220AB
MBR40L200CT



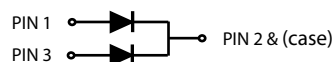
ITO-220AB
MBR40L200FCT



TO-262AB
MBR40L200WCT



TO-263(D²PAK)
MBR40L200DCT



MAXIMUM RATINGS(TA=25°C)

RATINGS	SYMBOL	MBR40L200CT	MBR40L200FCT	MBR40L200WCT	MBR40L200DCT	UNIT
Maximum repetitive reverse voltage	VRRM	200				V
Maximum RMS voltage	VRMS	140				V
Maximum DC blocking voltage	VDC	200				V
Maximum average forward current per device per diode	IAV	40 20				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	220				A
Typical thermal resistance per diode(Note 1)	Rθ-JC	2.0	4.5	2.5	2.5	°C/W
Operating junction temperature range	TJ	-55 to +175				°C
Storage temperature range	TSTG	-55 to +175				°C

Notes: 1. Thermal resistance from junction to case.

ELECTRICAL CHARACTERISTICS(TA=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	VBR	IR=0.5mA	200	-	-	V
Instantaneous forward voltage per diode	VF	IF=20A TJ=25°C	-	0.82	0.85	V
		IF=20A TJ=125°C	-	-	0.78	V
Reverse current per diode	IR	VR=200V TJ=25°C	-	-	50	uA
		TJ=125°C	-	-	30	mA

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

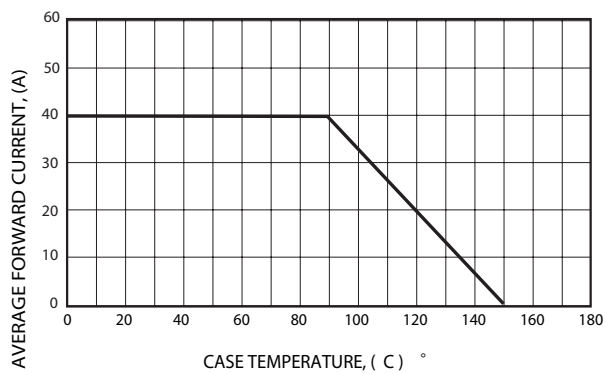


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

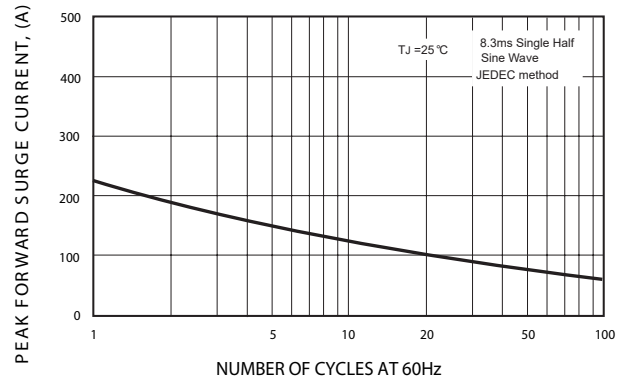


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

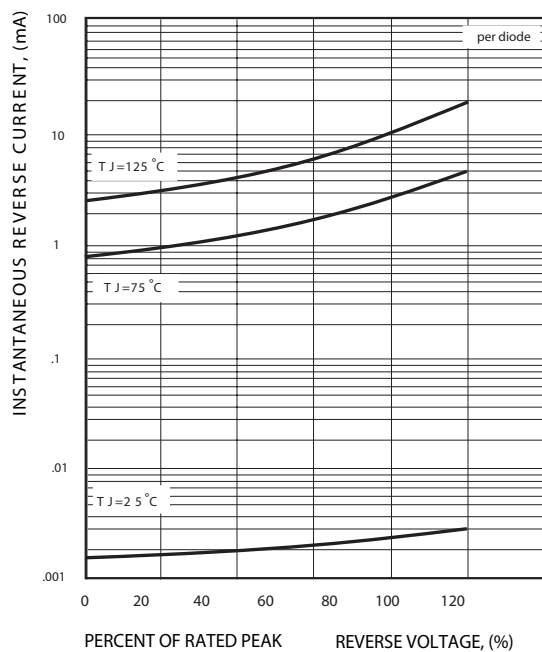


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

