

MBR30L200CT series

LOW VF Schottky Barrier Rectifiers

Features

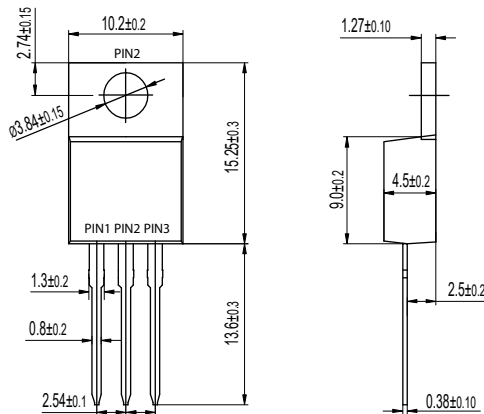
- Ultra low vf
- High efficiency operation
- Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS
- 2011/65/EU directive

Mechanical Data

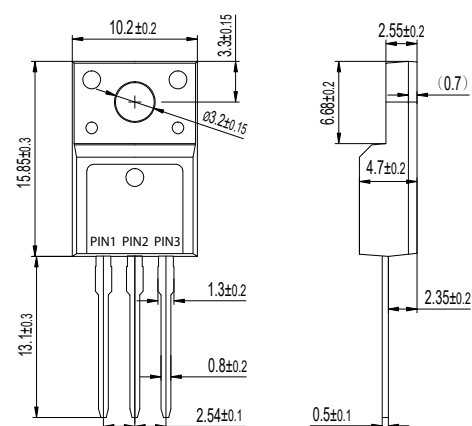
Circuit figure: Common cathode
Leads: Solderable per mil-std-202, Method 208
Polarity: as marked
Mounting torque: 5 in-lbs maximum
Terminals: Puretin plated
Weight: TO-220AB 1.85 grams
ITO-220AB 1.70 grams
TO-262AB 1.40 grams
TO-263(D²PAK) 1.35 grams

Package outline

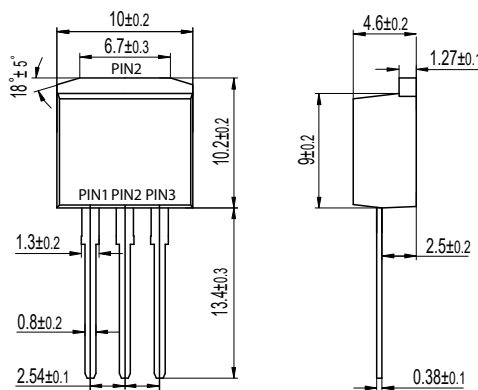
Dimensions in millimeters



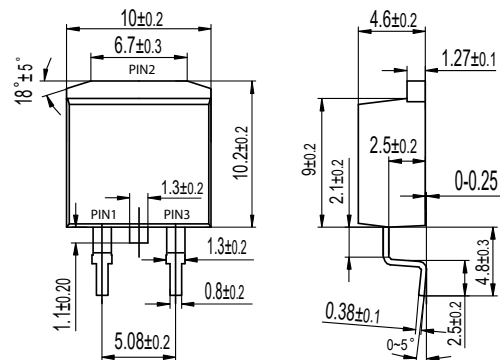
TO-220AB
MBR30L200CT



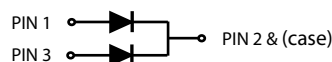
ITO-220AB
MBR30L200FCT



TO-262AB
MBR30L200WCT



TO-263(D²PAK)
MBR30L200DCT



MAXIMUM RATINGS(TA=25°C)

RATINGS	SYMBOL	MBR30L200CT	MBR30L200FCT	MBR30L200WCT	MBR30L200DCT	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	I _{AV}	30 15				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	400				A
Typical thermal resistance per diode(Note 1)	R _{θ-JC}	2.0	4.5	2.5	2.5	°C/W
Operating junction temperature range	T _J	-55 to +175				°C
Storage temperature range	T _{STG}	-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	V _{BR}	I _R =0.3mA	200	-	-	V
Instantaneous forward voltage per diode	V _F	I _F =5A I _F =10A I _F =15A T _J =25°C	- - -	0.74 0.80 0.84	- - 0.88	V
		I _F =15A T _J =125°C	-	-	0.75	V
Reverse current per diode	I _R	V _R =200V T _J =25°C	-	-	5	uA
		T _J =125°C	-	-	25	mA

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

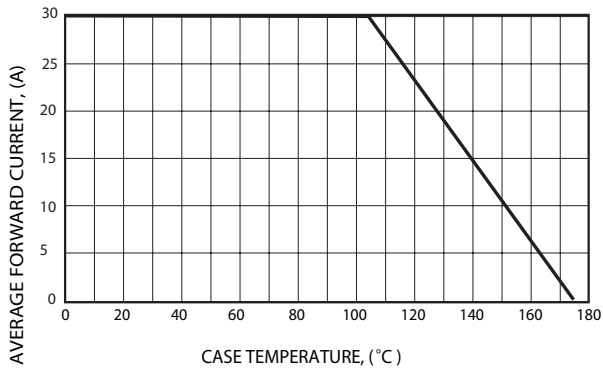


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

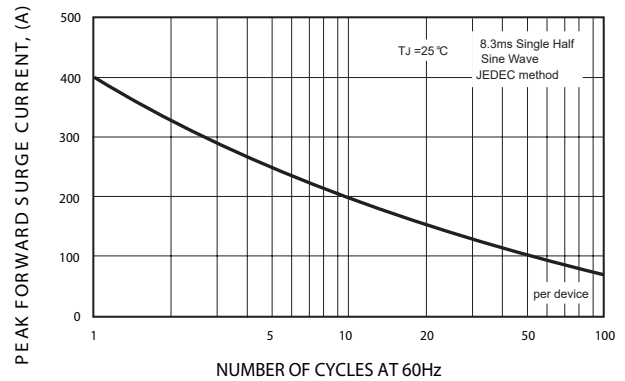


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

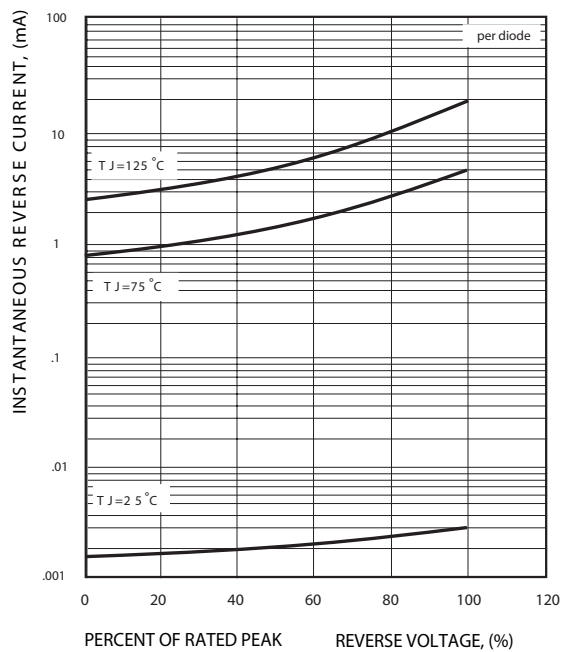


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

