

General Description

MBRF10200CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Features

- Common Cathode
- Multilayer Metal -Silicon Potential Structure
- Have Over Voltage protect loop, high reliability
- RoHS Compliant

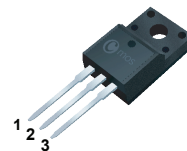
Product Summary

V _{RRM}	V _F	I _{F(AV)}
200V	0.89V	10A

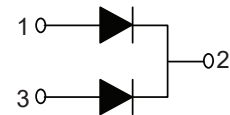
Applications

- DC/DC converter
- Switched Mode Power Supplies (SMPS)
- Low Voltage High Frequency Invers Circuit

TO-220F Pin Configuration



TO-220F
(MBRF10200CT)



1. Anode
2. Common Cathode
3. Anode

Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V _{RRM}	Peak Repetitive Reverse Voltage	200	V
I _{F(AV)}	Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	5 (Per Leg) 10 (Total)	A
dv/dt	Voltage rate of change (Rated VR)	10000	V/uS
I _{RRM}	Peak Repetitive Reverse Surge Current (2uS,1Khz)	0.5	A
I _{FSM}	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	110	A
T _J	Operating Junction Temperature	175	°C
T _{STG}	Storage Temperature	-40 to 175	°C

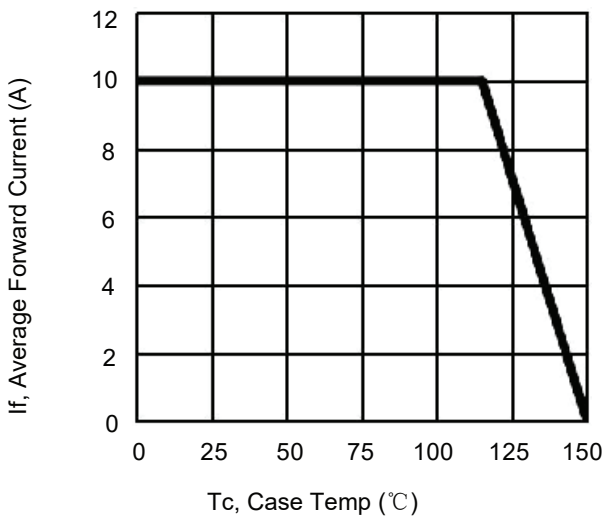
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
R _{θJC}	Thermal Resistance, Junction to Case(Per Leg)	4	---	°C/W

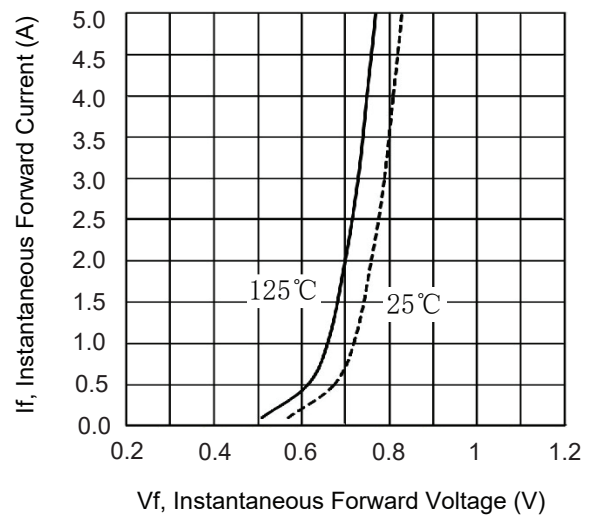
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _F	Forward Voltage Drop per diode	I _F =5A, T _C =25°C	---	0.84	0.89	V
		I _F =5A, T _C =125°C	---	---	0.79	
I _R	Reverse Leakage Current per diode	V _R =200V, T _C =25°C	---	---	0.01	mA
		V _R =200V, T _C =125°C	---	---	0.5	mA

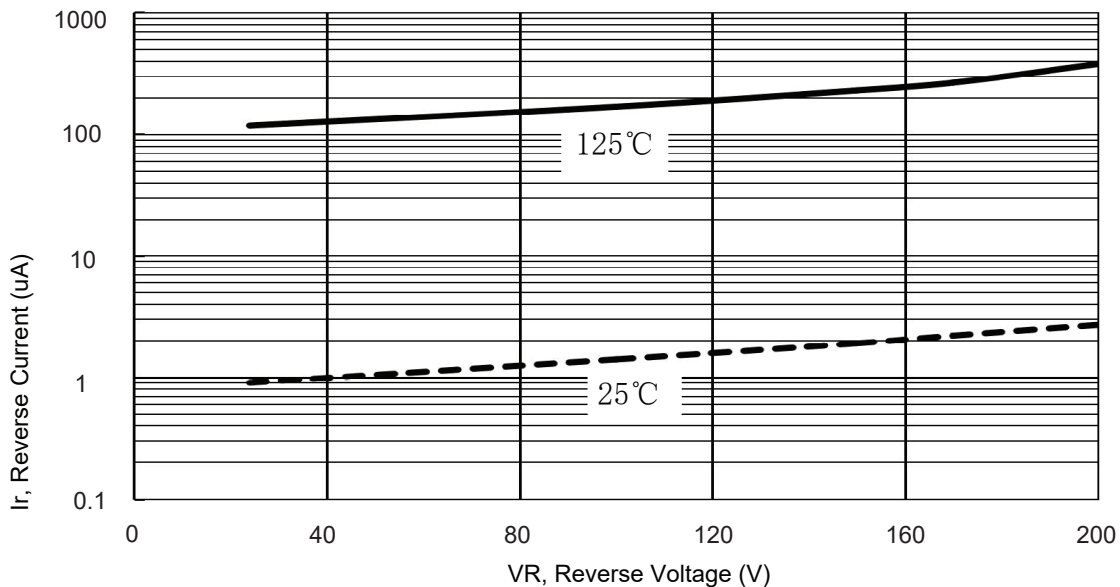
Typical Performance Characteristics



Current derating curve, per element



The forward voltage and forward current curve



The reverse leak current and the reverse voltage (single-device) curve

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