MBRD1545CTLV

15A SCHOTTKY BARRIER RECTIFIER

General Description

MBRD1545CTLV Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
45V	0.55V	15A

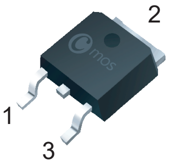
Applications

- Low Voltage High Frequency Invers Circuit.
- Low Voltage High Frequency Switching Power Supply.
- Low Voltage Continued Circuit and Protection Circuit.

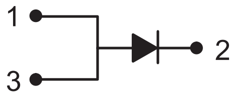
Features

- Common Cathode
- Low Leakage Current
- RoHS Compliant
- High Junction Temperature Capability.
- High Current Capability, High Efficiency

TO-252 Pin Configuration



TO-252
(MBRD1545CTLV)



Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{RRM}	Peak Repetitive Reverse Voltage	45	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	15	A
I_{FSM}	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	150	A
T_J	Operating Junction Temperature	150	℃
T_{STG}	Storage Temperature	-40 to 150	℃

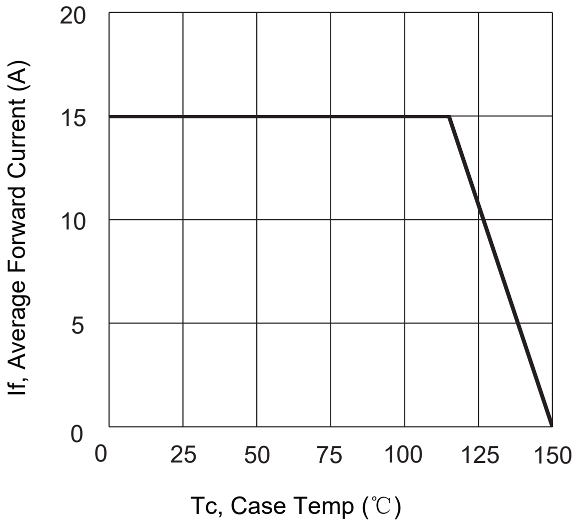
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	2.2	---	℃/W

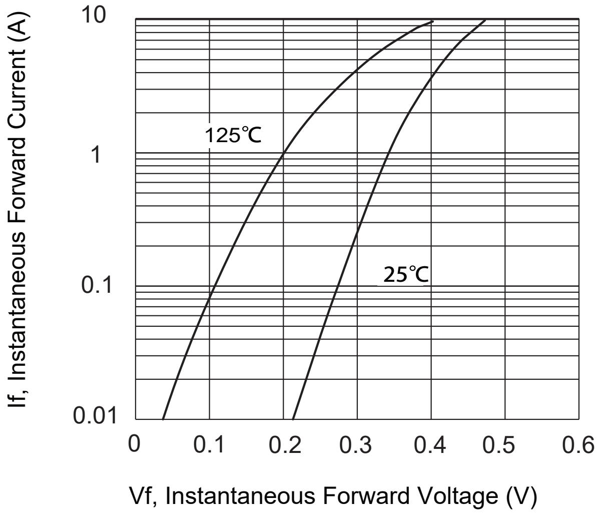
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop per diode	I_F=15A , T_J =25℃	---	0.48	0.55	V
I_R	Reverse Leakage Current per diode	V_R=45V, T_J=25℃	---	---	0.15	mA
		V_R=45V , T_J =100℃	---	---	20	mA

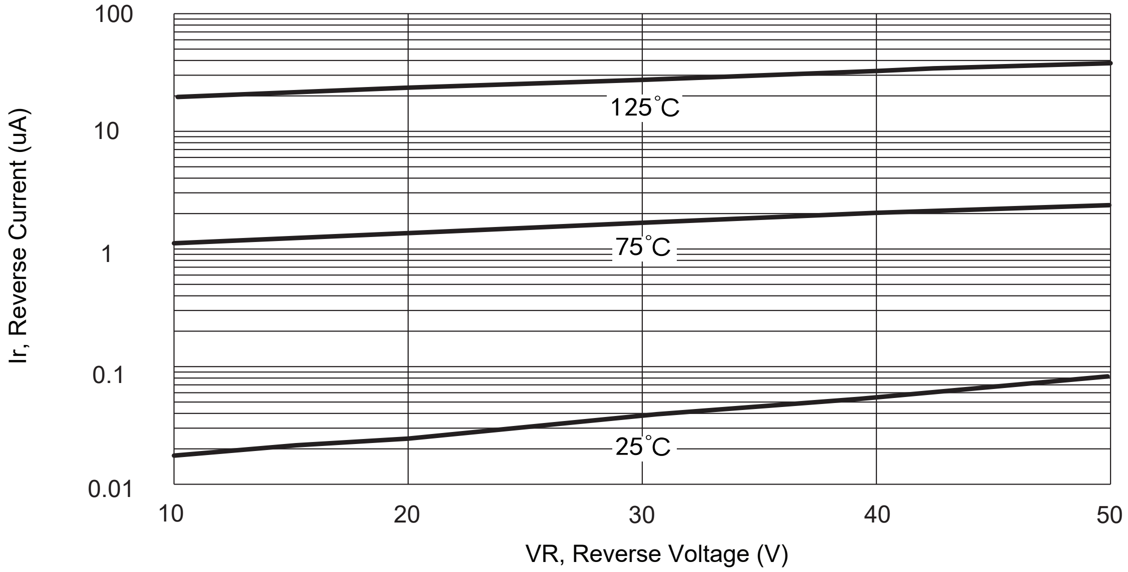
Typical Performance Characteristics



Current derating curve, perelement



The forward voltage and forward current curve



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

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