

20A SCHOTTKY BARRIER RECTIFIER

General Description

MBRF20100CTLV Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Features

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

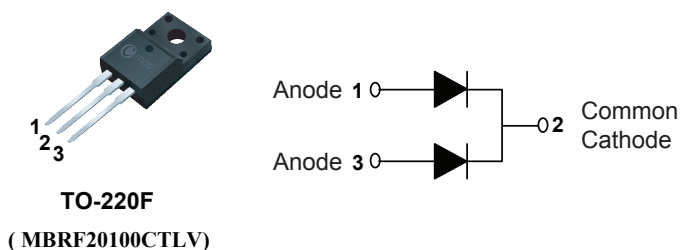
Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
100V	0.7V	20A

Applications

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

TO-220F Pin Configuration



Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{RRM}	Peak Repetitive Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	10 (Per Leg) 20 (Total)	A
I_{FSM}	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	180*2	A
T_J	Operating Junction Temperature	150	°C
T_{STG}	Storage Temperature	-40 to 150	°C

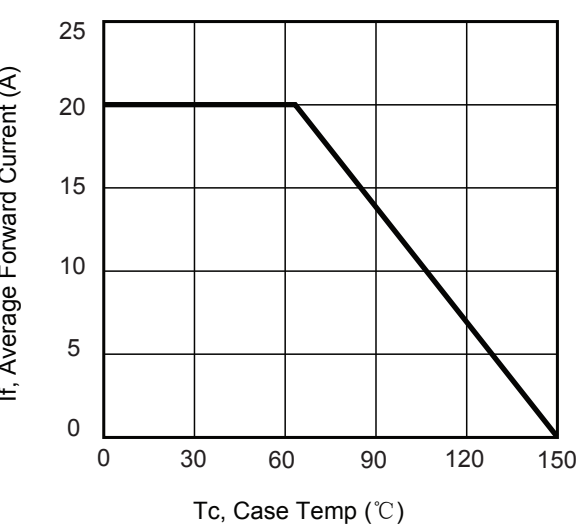
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	4	---	°C/W

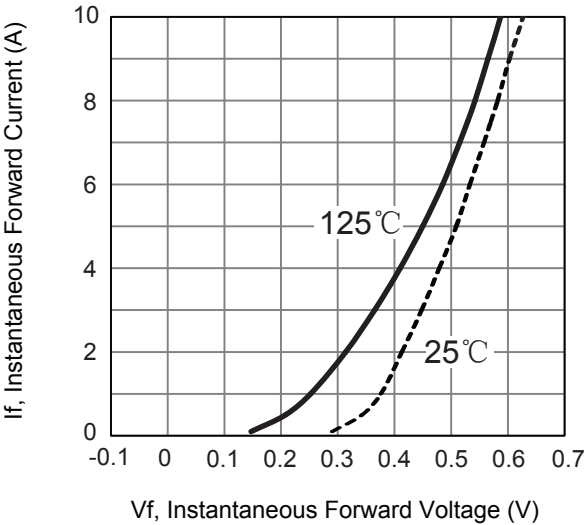
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _F	Forward Voltage Drop per diode	I _F =10A, T _J =25℃ (IFAV=10A*2)	---	0.63	0.7	V
		I _F =10A, T _J =125℃ (IFAV=10A*2)	---	---	0.65	
I _R	Reverse Leakage Current per diode	V _R =100V, T _J =25℃	---	---	0.05	mA
		V _R =100V, T _J =100℃	---	---	10.00	mA

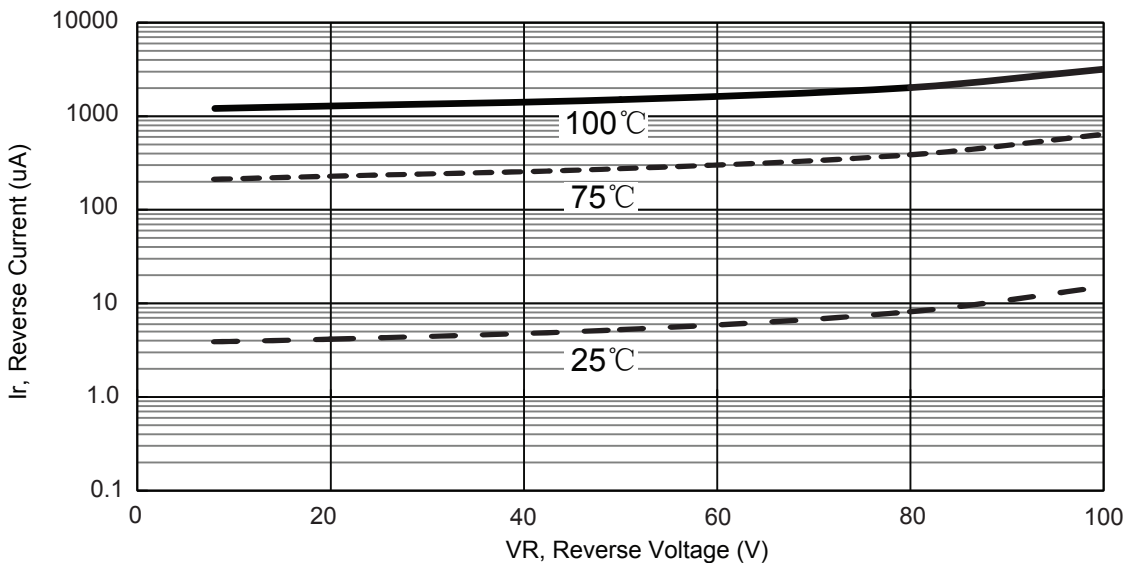
Typical Performance Characteristics



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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