MBRB20100CTLV

20A SCHOTTKY BARRIER RECTIFIER

General Description

MBRB20100CTLV Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
100V	0.75V	20A

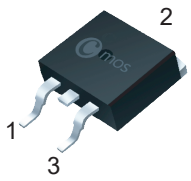
Applications

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

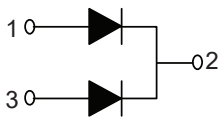
Features

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

TO-220 Pin Configuration



TO-263
(MBRB20100CTLV)



1.Anode
2.Common Cathode
3.Anode

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
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)	160x2	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	---	℃/W

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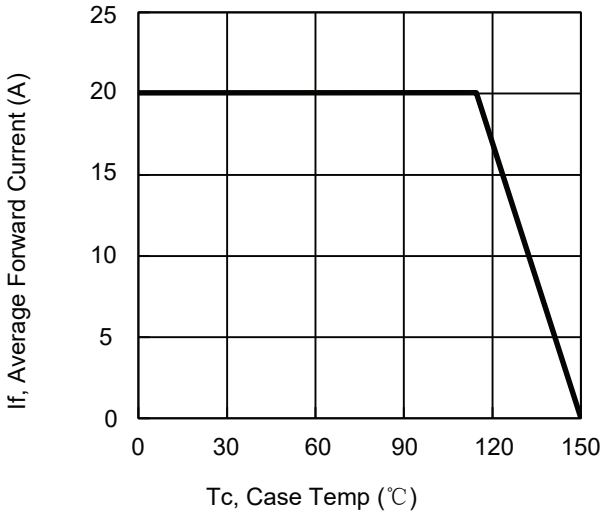
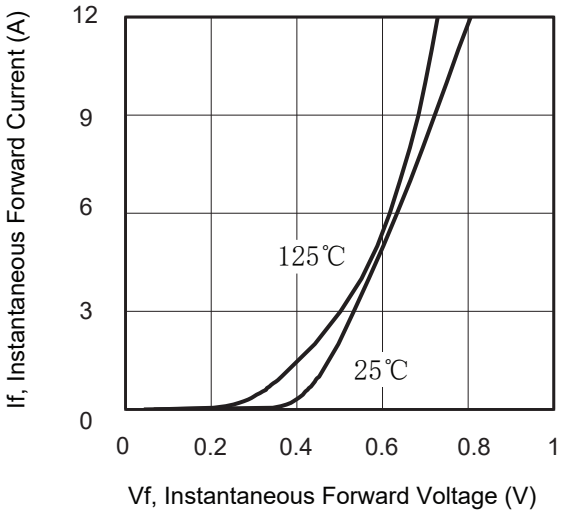
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop per diode	I_F=10A, T_C=25℃	---	0.65	0.75	V
		I_F=10A, T_C=125℃	---	---	0.7	
I_R	Reverse Leakage Current per diode	V_R=100V, T_C=25℃	---	---	0.035	mA
		V_R=100V, T_C=125℃	---	---	15	mA

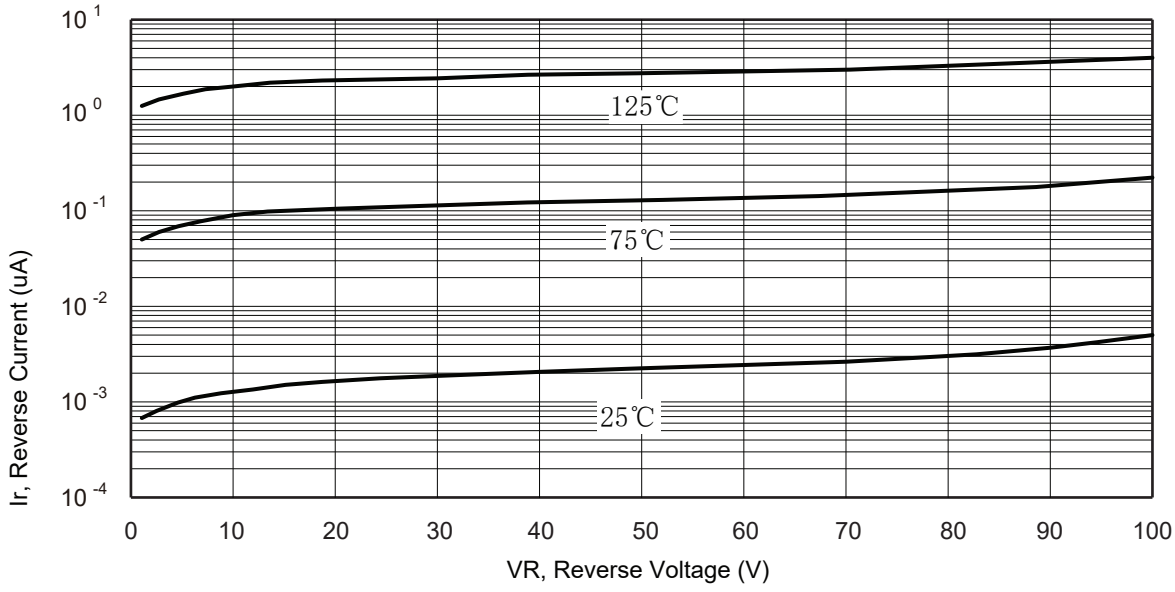
Performance Characteristics



Current derating curve, perelement



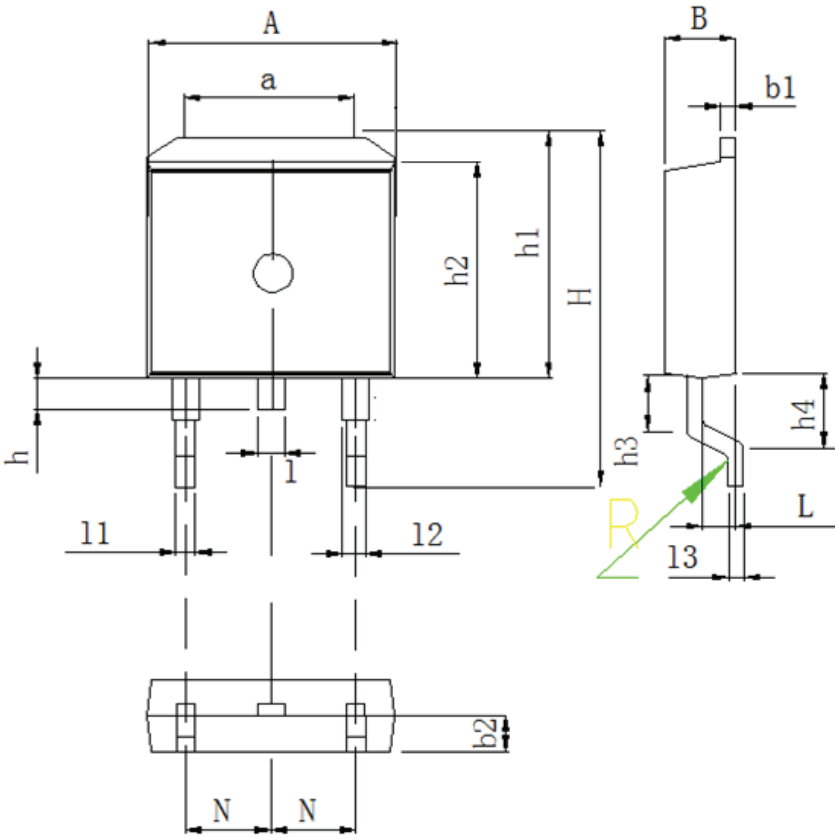
The forward voltage and forward current curve



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

Package Dimension

TO-263 Unit :mm



DIM	MILLIMETERS
A	9.8±0.2
a	7.4±0.4
B	4.5±0.2
b1	1.3±0.05
b2	2.4±0.2
H	15.5±0.3
h	1.54±0.2
h1	10.5±0.2
h2	9.2±0.1
h3	1.54±0.2
h4	2.7±0.2
L	2.4±0.2
l	1.3±0.1
l1	0.8±0.1
l2	1.3±0.1
l3	0.5±0.1
N	2.54±0.1
R	0.5R±0.05