MBR40200CT

40A SCHOTTKY BARRIER RECTIFIER

General Description

MBR40200CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
200V	0.9V	40A

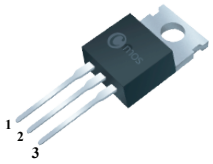
Features

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

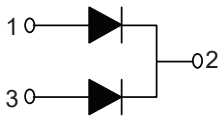
Applications

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

TO-220 Pin Configuration



TO-220
(MBR40200CT)



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	20 (Per Leg) 40 (Total)	A
I_{FSM}	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	450x2	A
T_J	Operating Junction Temperature	175	℃
T_{STG}	Storage Temperature	-40 to 175	℃

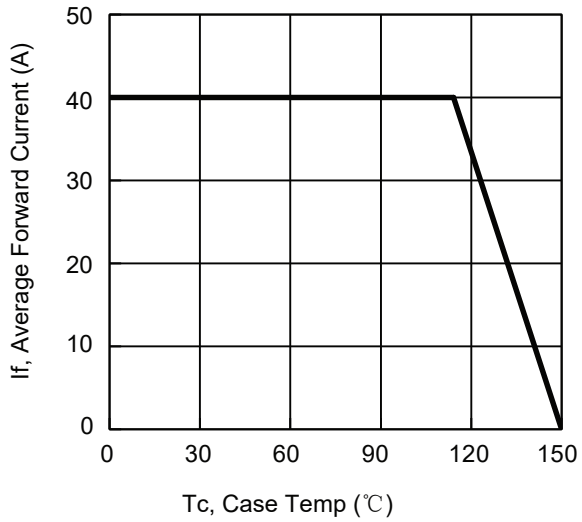
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	2	---	℃/W

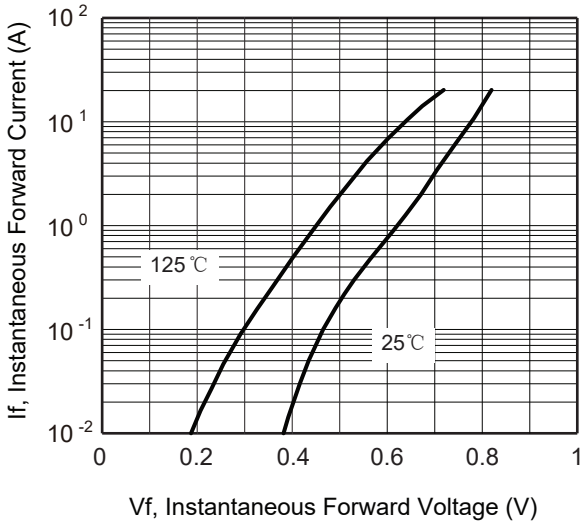
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop per diode	I_F=20A(I_{FAV}=20Ax2) , T_j =25℃	---	0.82	0.9	V
		I_F=20A(I_{FAV}=20Ax2) , T_j =125℃	---	---	0.8	
I_R	Reverse Leakage Current per diode	V_R=200V, T_j =25℃	---	---	0.05	mA
		V_R=200V, T_j =125℃	---	---	25	mA

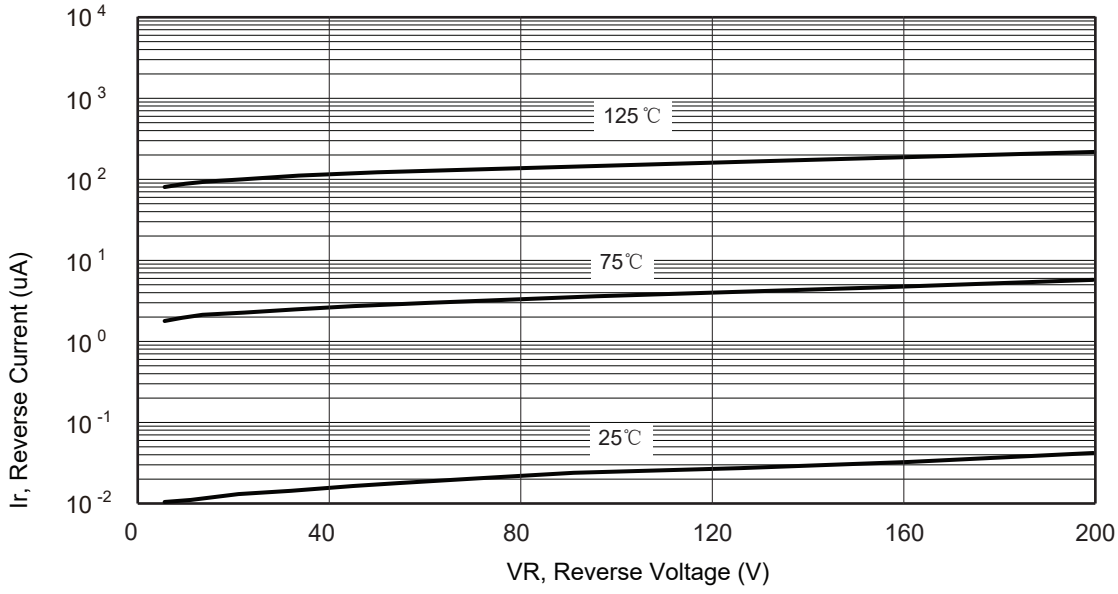
Typical Performance Characteristics



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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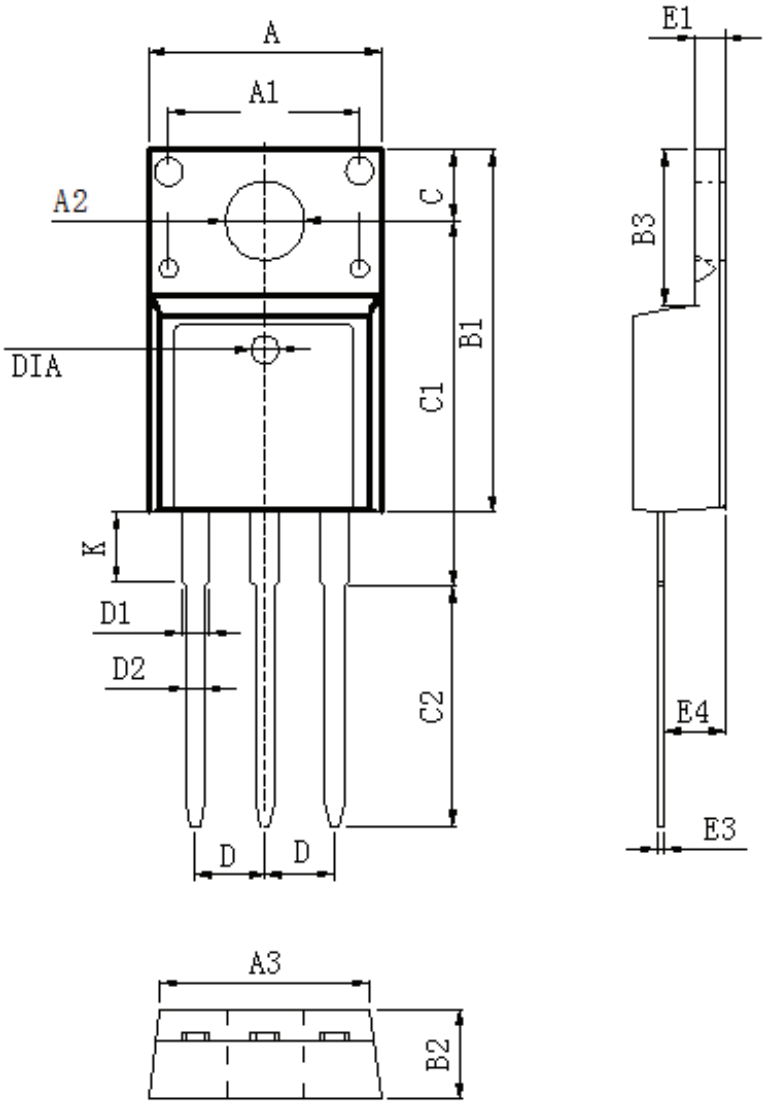
Cmos assumes no liability for customers' product design or applications.
Cmos reserver the right to improve product design ,functions and reliability wihtout notice.Please refer to the latest version of specification.

Package Dimension

TO-220F Unit :mm



DIM	MILLIMETERS
A	10.16±0.3
A1	7.00±0.1
A2	3.3±0.2
A3	9.5±0.2
B1	15.87±0.3
B2	4.7±0.2
B3	6.68±0.4
C	3.3±0.2
C1	12.57±0.3
C2	10.02±0.5
D	2.54±0.05
D1	1.28±0.2
D2	0.8±0.1
K	3.1±0.3
E1	2.54±0.1
E3	0.5±0.1
E4	2.76±0.2
DIA	⊙1.5(deep 0.2)