

20A SCHOTTKY BARRIER RECTIFIER

General Description

MBR20100FCTGY 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

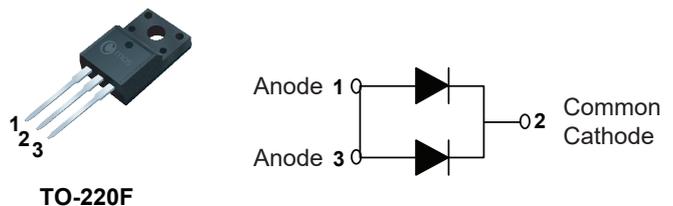
Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
100V	0.85V	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



Type	Package	Marking
MBR20100FCTGY	TO-220F	MBR20100FCTGY

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)	150*2	A
T_J	Operating Junction Temperature	150	°C
T_{STG}	Storage Temperature	-40 to 150	°C

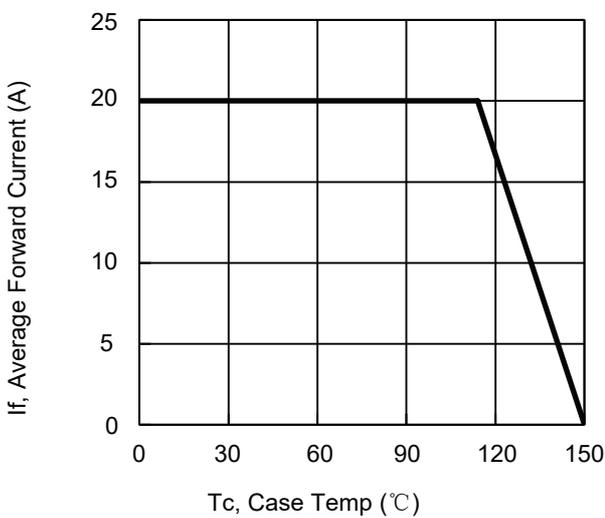
Thermal Data

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

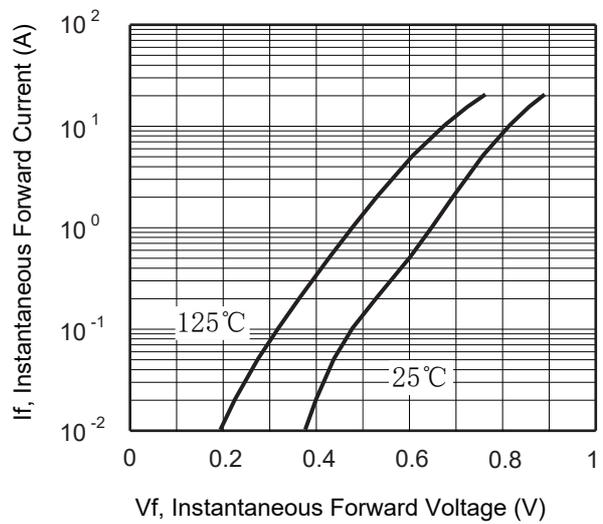
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _F	Forward Voltage Drop per diode	I _F =10A, T _J =25°C (IFAV=10A*2)	---	0.81	0.85	V
		I _F =10A, T _J =125°C (IFAV=10A*2)	---	---	0.75	
I _R	Reverse Leakage Current per diode	V _R =100V, T _J =25°C	---	---	0.01	mA
		V _R =100V, T _J =100°C	---	---	5.00	mA

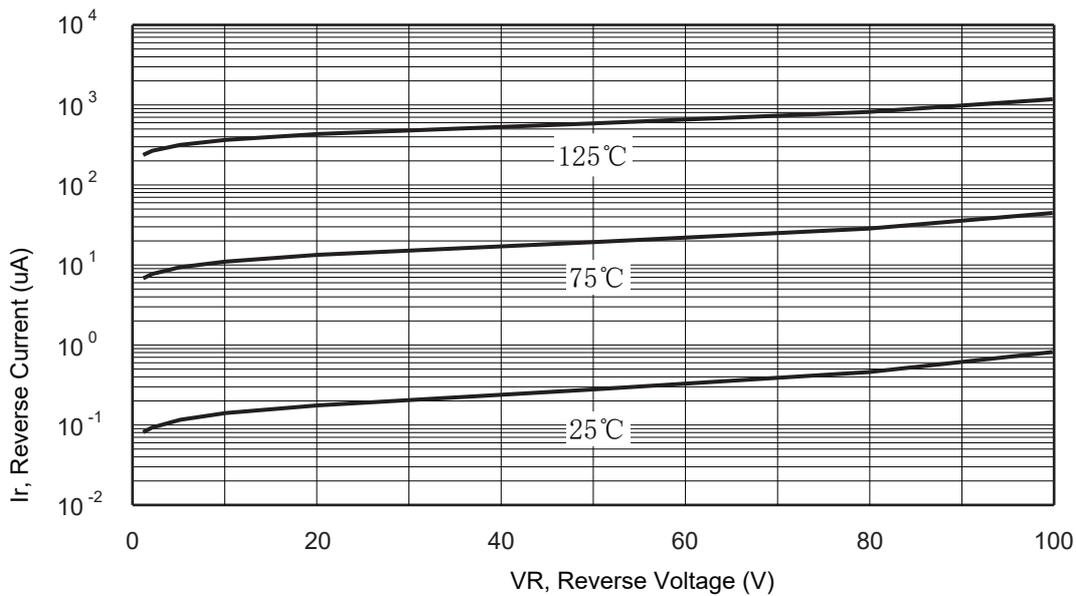
Performance Characteristics



Current derating curve, per element



The forward voltage and forward current curve



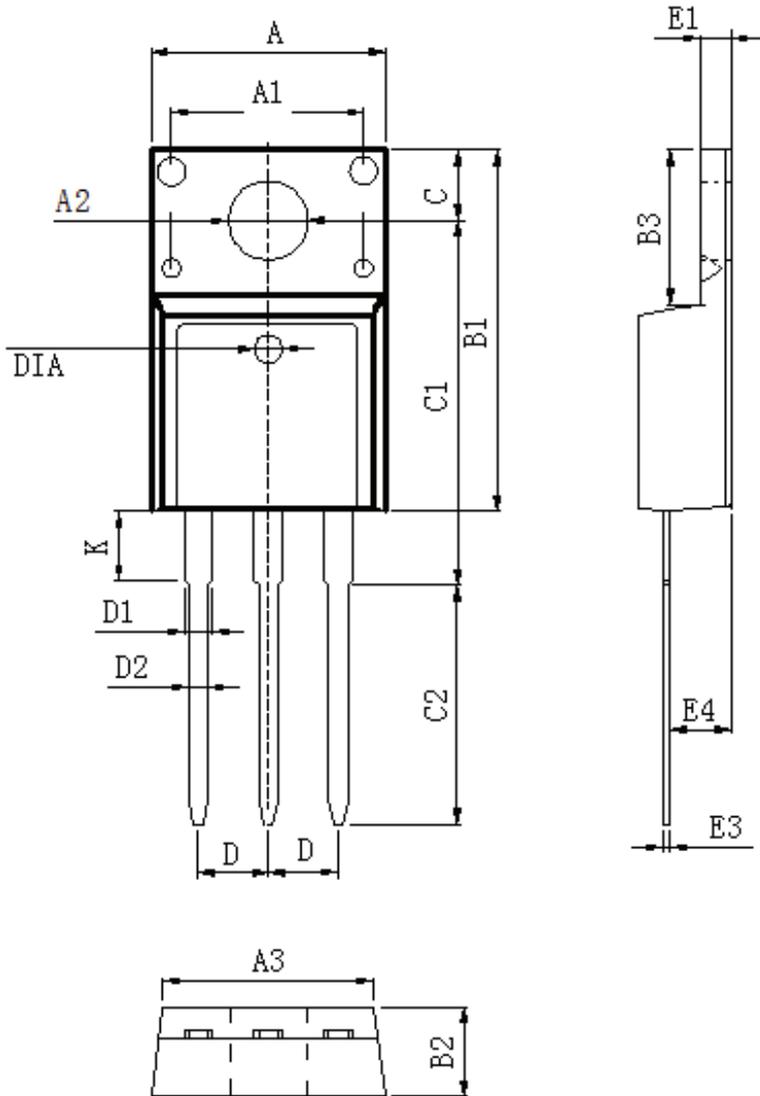
The reverse leak current and the reverse voltage (single-device) curve

This product has been designed and qualified for the consumer market.
 Cmos assumes no liability for customers' product design or applications.
 Cmos reserves the right to improve product design, functions and reliability without 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)