

## 20A SCHOTTKY BARRIER RECTIFIER

### General Description

MBRD20150CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications. The device is intended for use in Switched Mode Power Supplies (SMPS), adapters and DC/DC converters.

### Features

- Low forward voltage
- Low power loss/ high efficiency
- High Surge Current Capability
- RoHS Compliant

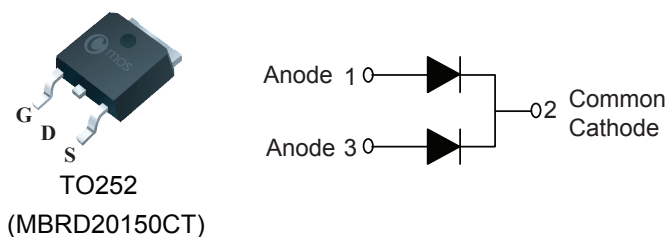
### Product Summary

$V_{RRM}$	$V_F$	$I_{F(AV)}$
150V	0.88V	20A

### Applications

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

### TO-252 Pin Configuration



### Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
$V_{RRM}$	Peak Repetitive Reverse Voltage	150	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)	290	A
$T_J, T_{STG}$	Operating and Storage Temperature Range	-40 to 150	°C

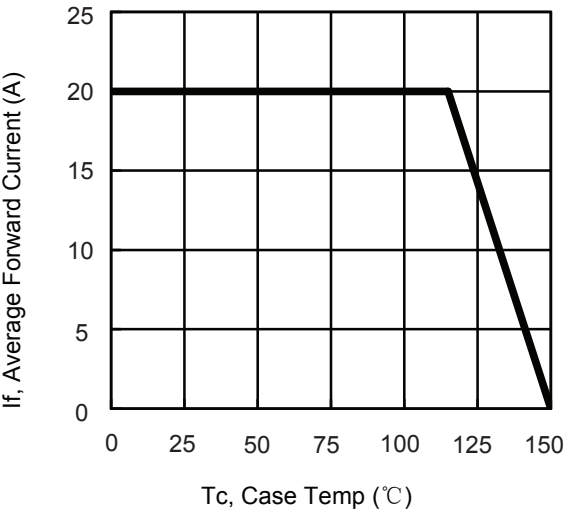
### Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	3	---	°C/W

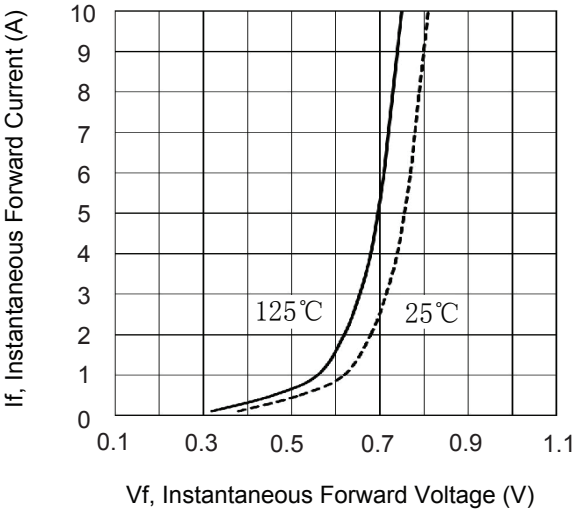
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_F$	Forward Voltage Drop per diode	$I_F=10A, T_C=25^{\circ}C$	---	0.82	0.88	V
		$I_F=10A, T_C=125^{\circ}C$	---	---	0.77	
$I_R$	Reverse Leakage Current per diode	$V_R=150V, T_C=25^{\circ}C$	---	---	0.02	mA
		$V_R=150V, T_C=125^{\circ}C$	---	---	3	mA

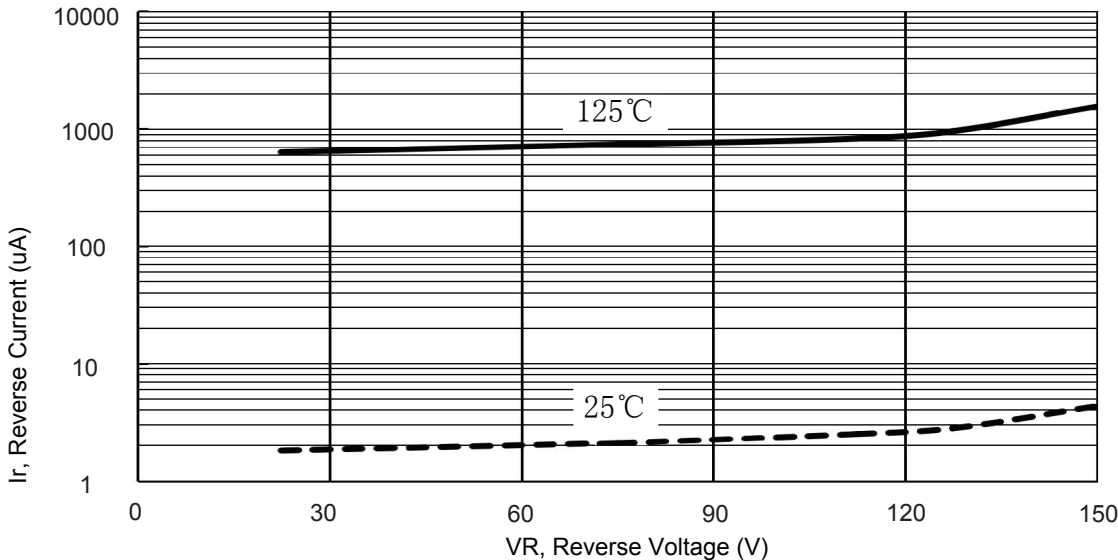
Typical Performance Characteristics



Current derating curve, per element



The forward voltage and forward current curve



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

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.