MBRD2060CT

Cmos

20A SCHOTTKY BARRIER RECTIFIER

General Description

MBRD2060CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications

Features

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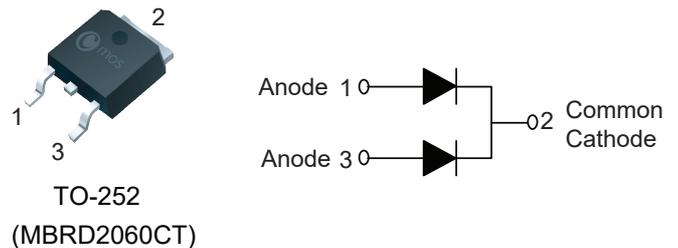- High Junction Temperature Capability
- RoHS Compliant

Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
60V	0.79V	20A

Applications

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

TO-252 Pin Configuration

Anode 1 ○———▷|———○ ─┐
                          ├─○2 Common Cathode
Anode 3 ○———▷|———○ ─┘

TO-252
(MBRD2060CT)

Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{RRM}	Peak Repetitive Reverse Voltage	60	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)	360	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)	3	---	℃/W

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Electrical Characteristics

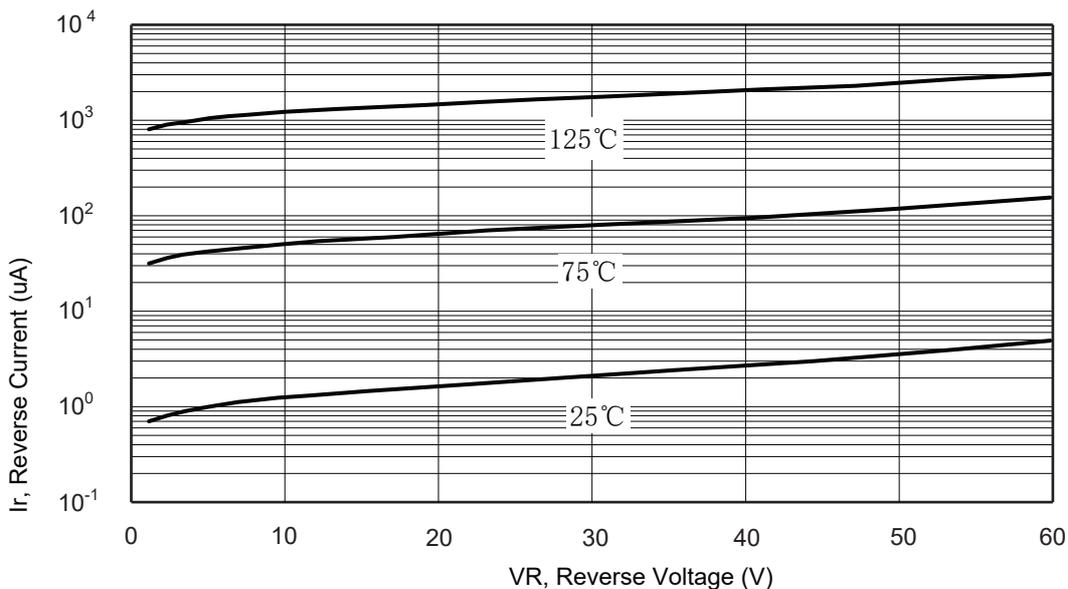| Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V$_F$	Forward Voltage Drop per diode	I$_F$=10A, T$_C$=25℃ IF(AV)=10A*2	---	0.71	0.79	V
		I$_F$=10A, T$_C$=125℃ IF(AV)=10A*2	---	---	0.72	
I$_R$	Reverse Leakage Current per diode	V$_R$=60V, T$_C$=25℃	---	---	0.03	mA
		V$_R$=60V , T$_C$=125℃	---	---	8.00	mA

Typical Performance Characteristics
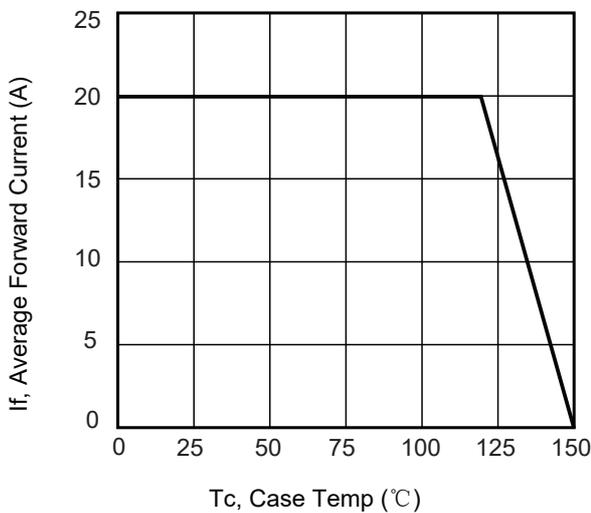
Current derating curve, perelement
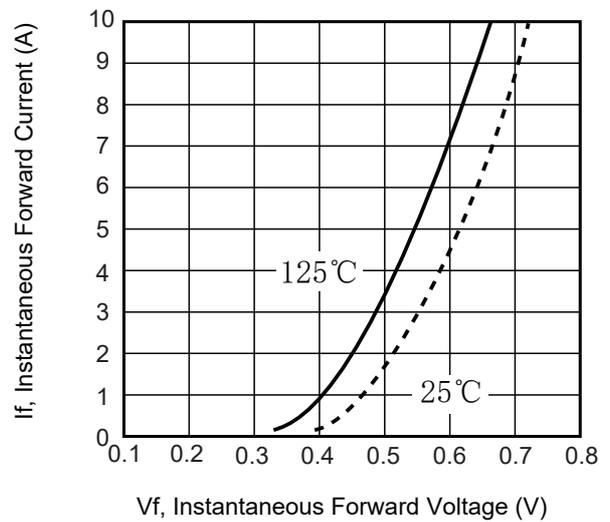
The forward voltage and forward current curve

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

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