

# Schottky Diodes

#### Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

### **Typical Applications**

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

#### **Mechanical Data**

• Package: TO-263 Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked

#### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRB3060CT
Device marking code			MBRB3060CT
Repetitive Peak Reverse Voltage	VRRM	V	60
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25℃	IO	А	30
Surge(Non-repetitive)Forward Current @60H <sub>Z</sub> half sine-wave, 1 cycle, Ta=25℃	IFSM	А	250
Current Squared Time @1ms≤t<8.3ms Tj=25℃,	l <sup>2</sup> t	A <sup>2</sup> s	176
Storage Temperature	Tstg	°C	-55 ~ +150
Junction Temperature	Tj	°C	-55 ~ +150

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRB3060CT
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=15.0A	0.72
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM T <sub>a</sub> =25℃	0.2
	IRRM2		VRM=VRRM T <sub>a</sub> =125℃	50

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# MBRB3060CT

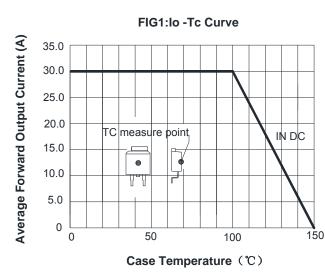
#### ■Thermal Characteristics (Ta=25°C Unless otherwise specified)

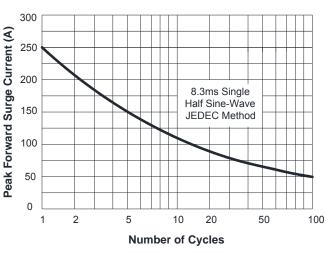
PAR	AMETER	SYMBOL	UNIT	MBRB3060CT
Thermal Resistance	Between junction and case	Rθյ₋c	°C <b>W</b>	2.0

#### ■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBRB3060CT	Approximate 1.43	50	2000	8000	Tube
MBRB3060CT	Approximate 1.43	1000	2000	10000	Reel

## ■Characteristics (Typical)





#### FIG2:Surge Forward Current Capability



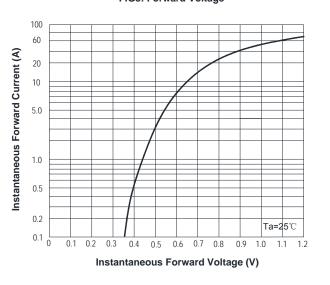
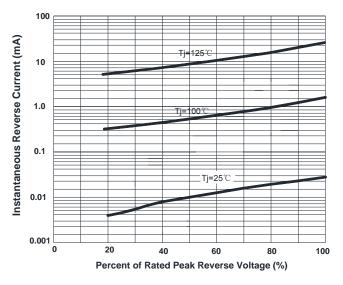
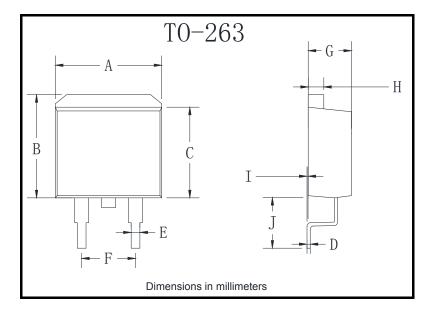


FIG.4: Typical Reverse Characteristics



#### Outline Dimensions



TO-263				
Dim	Min	Max		
Α	9.5	11.5		
В	9.7	10.5		
С	8.4	9.0		
D	0.28	0.64		
E	0.68	0.94		
F	4.55	5.6		
G	4.04	5.10		
Н	1.14	1.4		
I	0	0.2		
J	4.9	6.05		

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