



## **Schottky Diodes**



- High frequency operation
- Low forward voltage drop
- 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 ℃

### **Typical Applications**

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

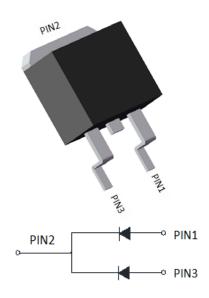
#### **Mechanical Data**

• 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	MBRBL2060CT
Device marking code			MBRBL2060CT
Repetitive Peak Reverse Voltage	VRRM	V	60
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>C</sub> =126°C	IO	Α	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>a</sub> =25°C	IFSM	Α	150
Current Squared Time @1ms≤t≤8.3ms Tj=25°C	l²t	A <sup>2</sup> s	94
Storage Temperature	Tstg	°C	-55 ~ +150
Junction Temperature	Tj	°C	-55 ~ +150

**■Electrical Characteristics** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRBL2060CT
Maximum instantaneous forward voltage drop per diode	VFM	٧	IFM=10.0A	0.6
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1		VRM=VRRM T <sub>a</sub> =25°C	0.2
	IRRM2	mA	VRM=VRRM T <sub>a</sub> =100°C	30

## MBRL2060FCT

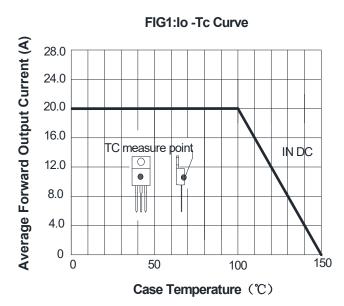
## **Thermal Characteristics** $(T_a=25^{\circ}\mathbb{C} \text{ Unless otherwise specified})$

PARA	METER	SYMBOL	UNIT	MBRBL2060CT
Thermal Resistance	Between junction and case	R <sub>θJ-C</sub>	°CMV	2.0

**■Ordering Information** (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MDDDI 2000CT	Approximate 1.43	50	2000	8000	Tube
MBRBL2060CT	Approximate 1.43	1000	2000	10000	Reel

#### **■Characteristics** (Typical)



10 10 5.0 1.0 0.5 Ta=25°C

Instantaneous Forward Voltage (V)

0.4 0.5 0.6 0.7 0.8 0.9 1.0

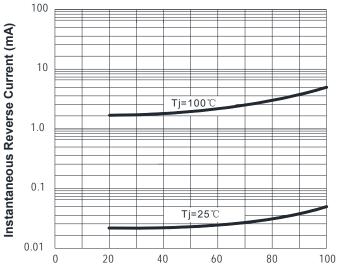
FIG3: Forward Voltage

175 Peak Forward Surge Current (A) 150 125 8.3ms Single Half Sine-Wave 100 JEDEC Method 75 50 25 2 20 50 10 100

FIG2:Surge Forward Current Capability



**Number of Cycles** 

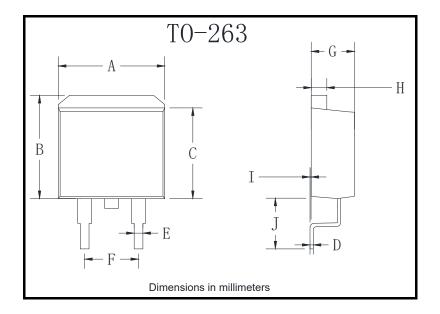


Percent of Rated Peak Reverse Voltage (%)



# MBRL2060FCT

## **■**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		
Е	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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