

## Product Specification

Type

**MBRB2060CT**

Construction : : Schottky Barrier Rectifier

Application : For General Purpose

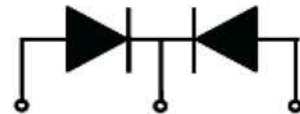
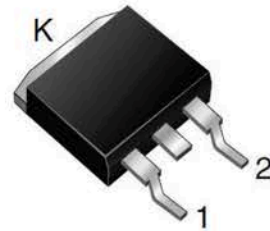
(Manufacturer) :

Surge Components.com

Prepared on May. 10<sup>th</sup>, 2011

Prepared: R & D Department

Approva: QRA Department



1. Anode 2.Cathode 3. Anode

**SCHOTTKY BARRIER RECTIFIER**

**20 AMPERES**

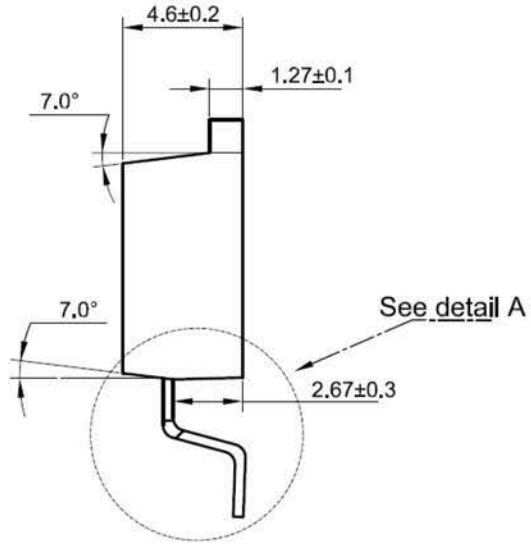
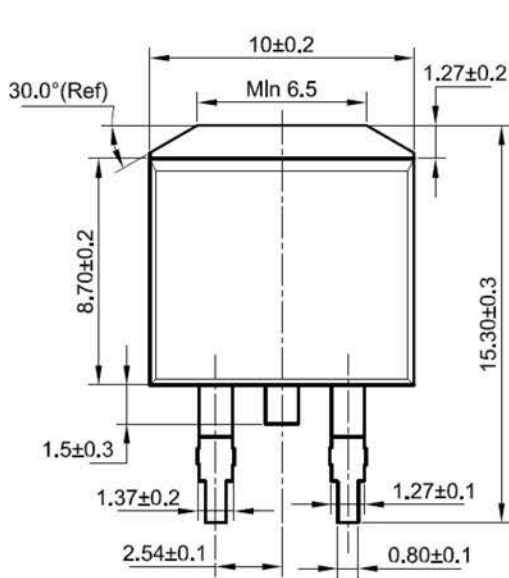
**60 VOLTS**

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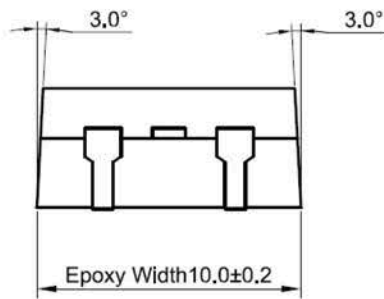
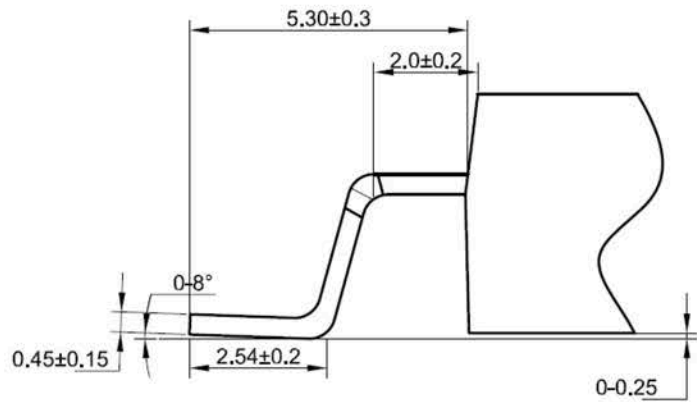
1. Package Outline
2. Marking
3. Features& Mechanical Characteristics
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5. Rating and characteristic Curves
6. Packing Specification PACKAGING SPECIFICATION
7. Description of Box Label

**1. Package Outline (TO263)**

UNIT:mm

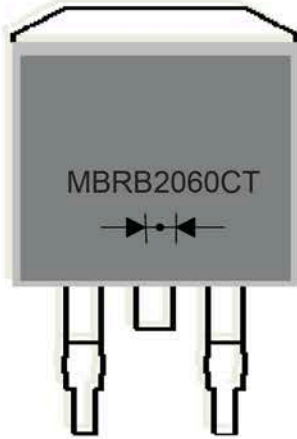



**Detail A**



Lead Frame Material : Copper      Plating: Pure Tin Plating

**2.MARKING**



- |                |  |
|----------------|--|
| 1. Part Name : | MBRB2060CT   |
| 2. Logo Mark:  |  |
| 3. Polarity:   |  |

### 3.Features& Mechanical Characteristics

#### Features

- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- For surface mounted application
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection
- For use in low voltage, high frequency inverters,
- Free wheeling, and polarity protection applications

#### Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.4grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max.for10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel

### 4.Maximum Ratings and Electrical Characteristics

MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS(TC=25°C unless otherwise moted)					
PARAMETER	TEST CONDITIONS		SYMBOL	MBRB2060CT	UNIT
Maximum repetitive peak reverse voltage			VRRM	60	V
Working peak reverse voltage			VRWM	60	V
Maximum DC blocking voltage			VDC	60	V
Maximum average forward rectified current at Tc=105°C total device per diode			IF(AV)	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			IFSM	150	A
Peak repetitive reverse current per leg at tp=2.0us , 1KHz			Irrm	1	A
Voltage rate of change (rated VR)			DV/dt	10000	V/us
Operating junction temperature range			TJ	-55 to +150	°C
Storage temperature range			TSTG	-55 to +150	°C
Maximum instantaneous forward voltage per leg	IF=10A	TC=25°C	VF	0.80	V
	IF=10A	TC=125°C		0.70	
	IF=20A	Tc=25°C	VF	0.95	V
	IF=20A	Tc=125°C		0.85	
Maximum reverse current per leg at working peak Reverse voltage	TJ=25°C TJ=100°C		IR	200 15	uA mA

#### Thermal Characteristics Ta=25°C unless otherwise noted

Symbol	Parameter	Max	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0	°C /W

#### Note:

1. Pulse test:300us pulse width, duty cycle=2%

## 5. Rating and Characteristic Curves

( $T_a=25^\circ\text{C}$  Unless otherwise noted)

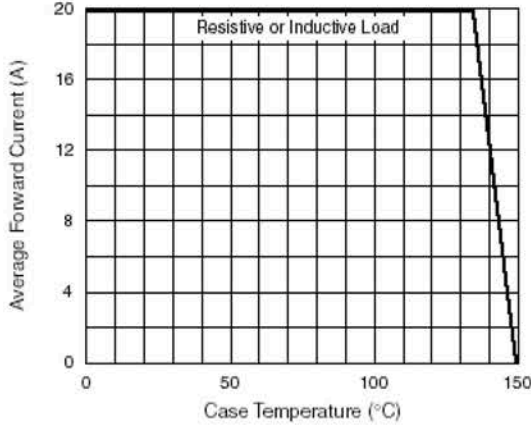


Figure 1. Forward Derating Curve (Total)

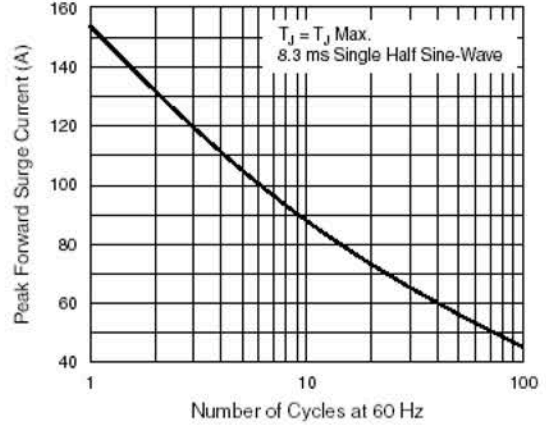


Figure 2. Maximum Non-Repetitive Peak Forward Surge

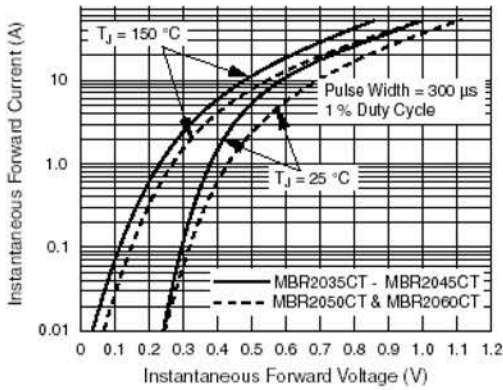


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

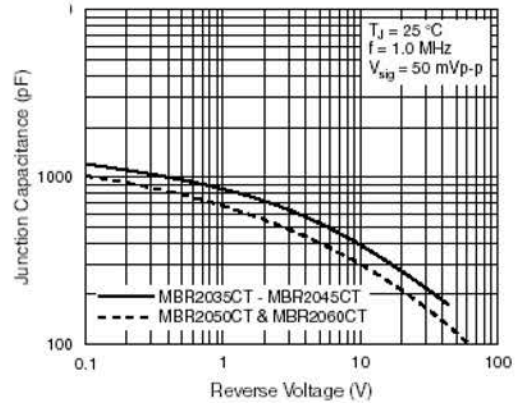


Figure 5. Typical Junction Capacitance Per Diode

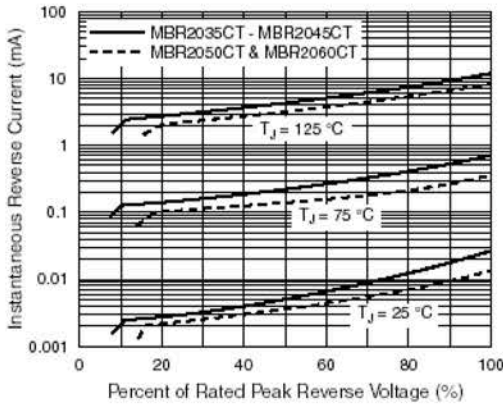


Figure 4. Typical Reverse Characteristics Per Diode

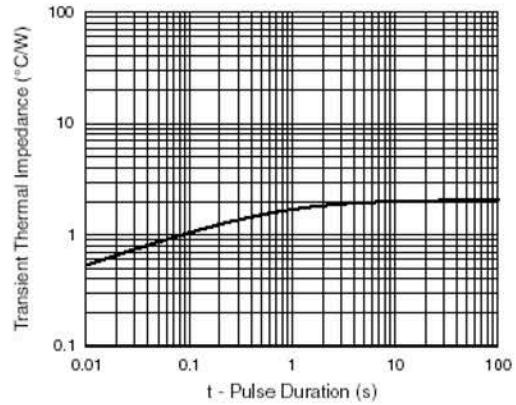


Figure 6. Typical Transient Thermal Impedance Per Diode

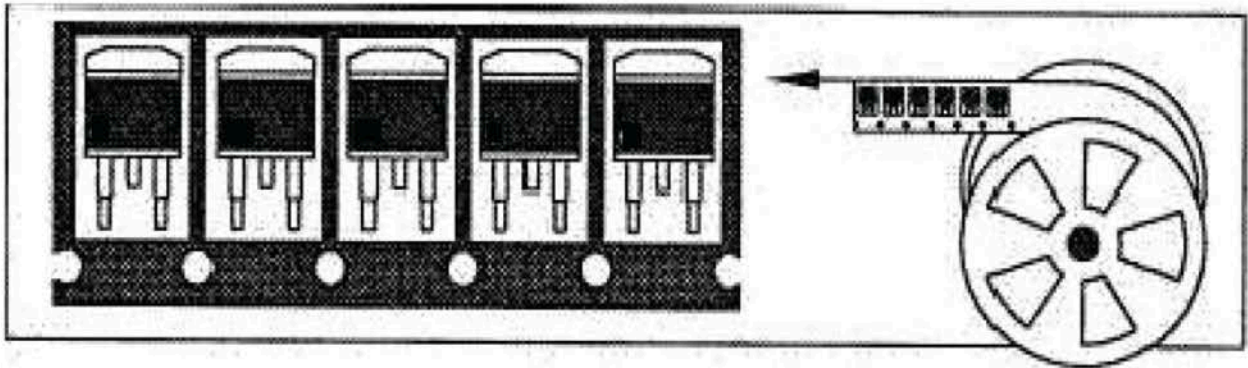
**6. Packing Specification**

**6.1 Tube packing**

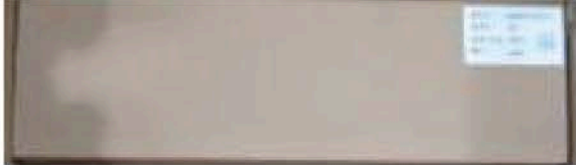



**6.2 Tape&reel packing**

Packing size:800 /reel( 13' reel)



**7. DESCRIPTION of BOX LABEL**

	<p><b>TYPE:</b>  <b>Q'TY:</b>  <b>P/O NO:</b>  <b>LOT NO:</b></p>
<p>1) Inner Box Label</p>	<p>2) Inner Box Label</p>
	<p><b>TYPE:</b>  <b>Q'TY:</b>  <b>P/O NO:</b></p>
<p>3) Outer Box Label</p>	<p>4) Outer Box Label</p>