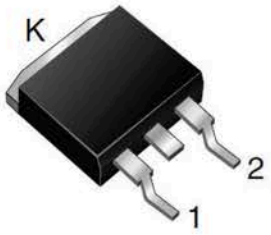
www.surgecomponents.com

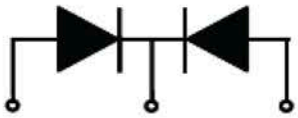
Product Specification

Type

MBRB2060CT

Construction : : Schottky Barrier Rectifier
Application : For General Purpose
（Manufacturer）:
Surge Components.com
Prepared on May. 10th, 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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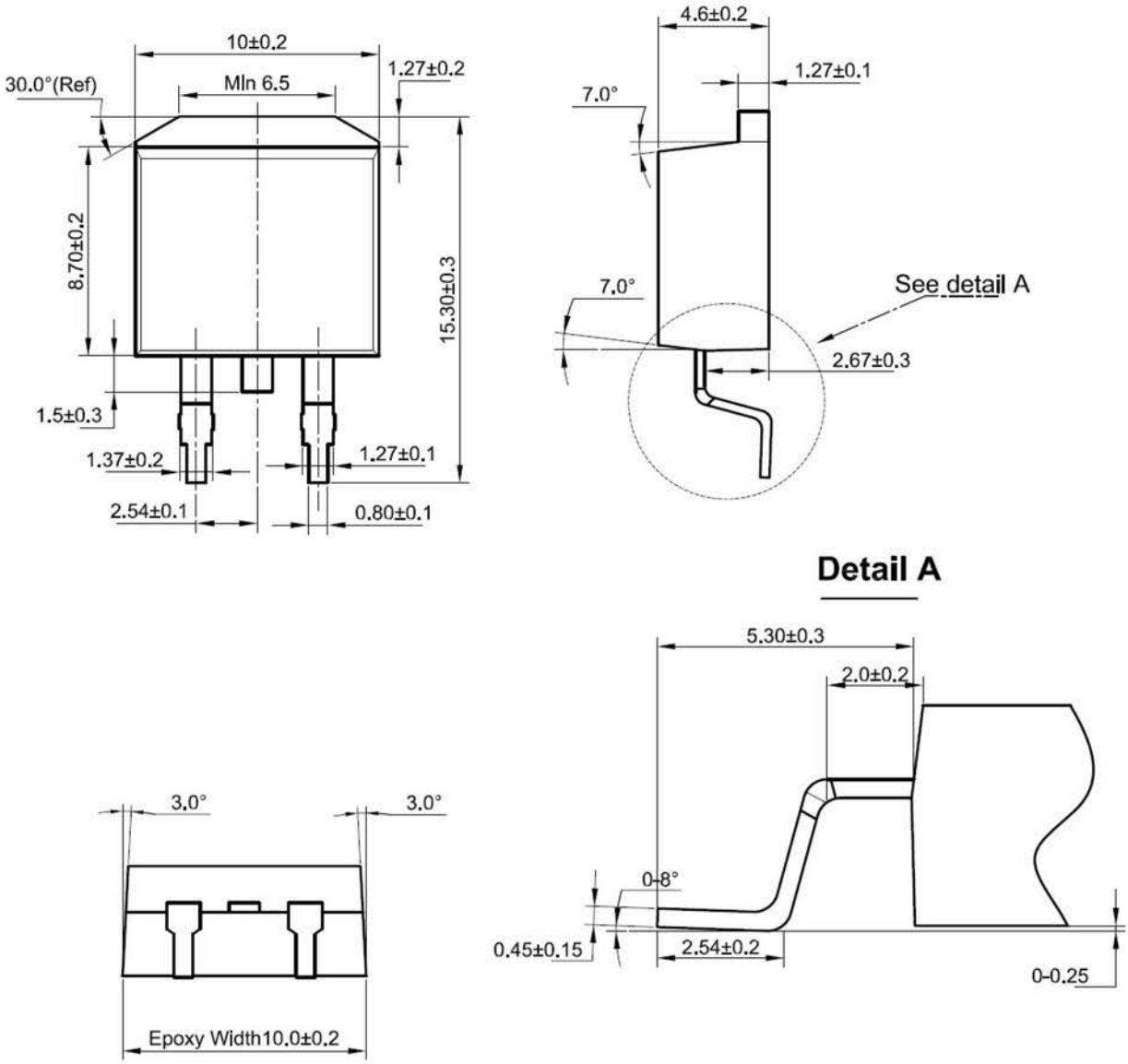
7. Description of Box Label

Pb-free Plating

1. Package Outline (TO263)

UNIT:mm



Lead Frame Material : Copper Plating: Pure Tin Plating

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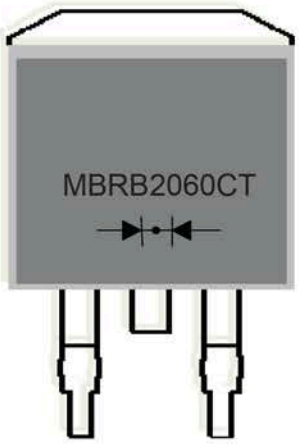
2.MARKING



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			V_{RRM}	60	V
Working peak reverse voltage			V_{RWM}	60	V
Maximum DC blocking voltage			V_{DC}	60	V
Maximum average forward rectified current at Tc=105°C total device per diode			$I_{F(AV)}$	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	150	A
Peak repetitive reverse current per leg at tp=2.0us ， 1KHz			I_{RRM}	1	A
Voltage rate of change（rated VR）			DV/dt	10000	V/us
Operating junction temperature range			T_J	—55 to +150	°C
Storage temperature range			T_{STG}	—55 to +150	°C
Maximum instantaneous forward voltage per leg	IF=10A IF=10A	TC=25℃ TC=125℃	VF	0.80 0.70	V
	IF=20A IF=20A	Tc=25°C Tc=125℃	VF	0.95 0.85	V
Maximum reverse current per leg at working peak Reverse voltage		TJ=25℃ TJ=100°C	IR	200 15	uA mA

Thermal Characteristics Ta=25℃ unless otherwise noted

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance，Junction to Case per Leg	2.0	°C /W

Note：

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

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5. Rating and Characteristic Curves

(Ta=25℃ Unless otherwise noted)

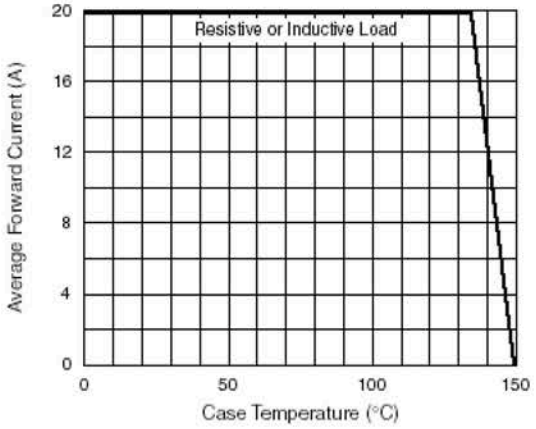

Figure 1. Forward Derating Curve (Total)

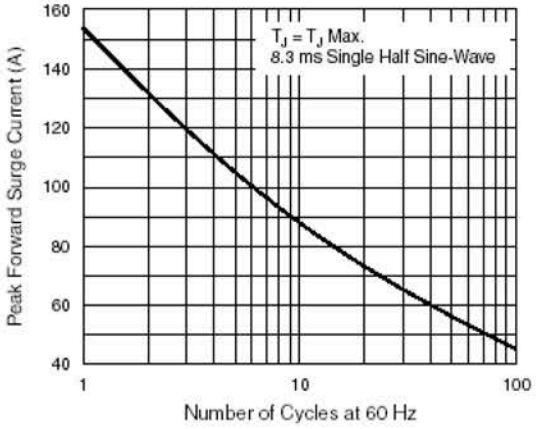

Figure 2. Maximum Non-Repetitive Peak Forward Surge

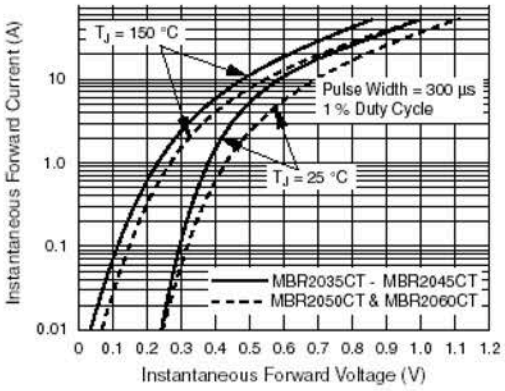

Figure 3. Typical Instantaneous Forward Characteristics Per Diode

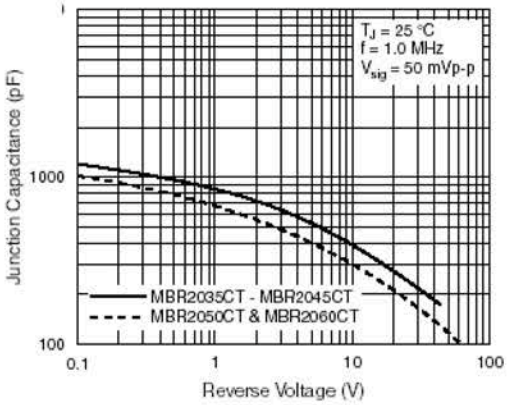

Figure 5. Typical Junction Capacitance Per Diode

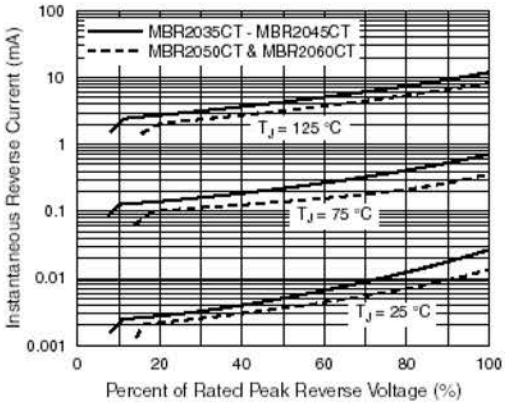

Figure 4. Typical Reverse Characteristics Per Diode

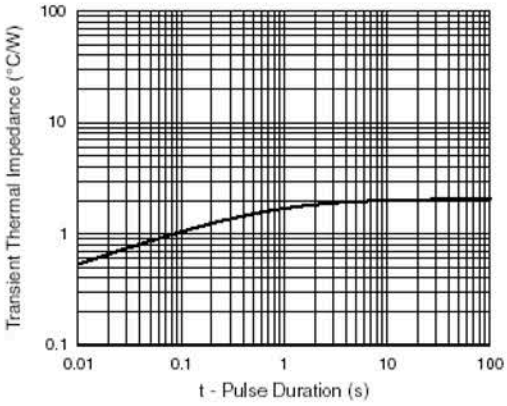

Figure 6. Typical Transient Thermal Impedance Per Diode

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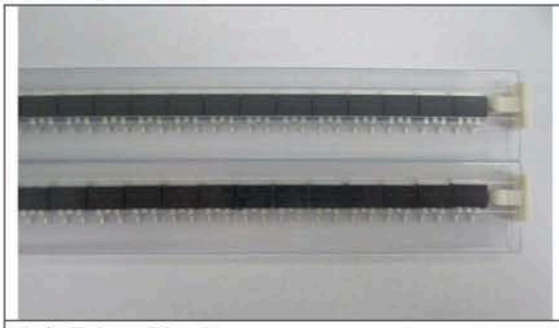
6. Packing Specification

6.1 Tube packing



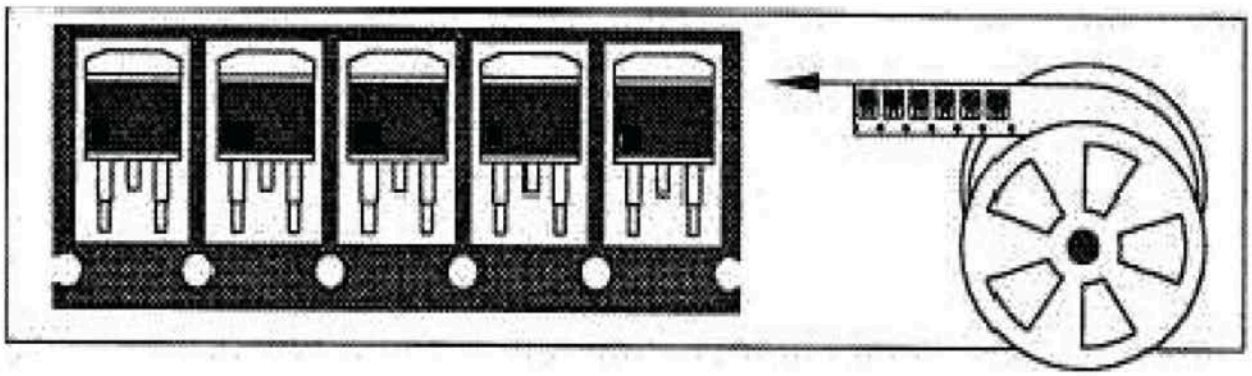
1 ） Tube : 50units

2） Inner Box: 20 tube(1000units)

3） Outer Box: 10 inner box (10,000units)

6.2 Tape&reel packing

Packing size:800 /reel(13' reel)



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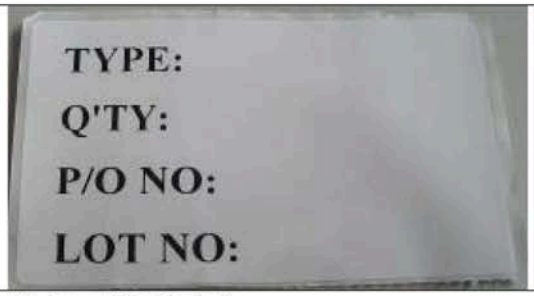
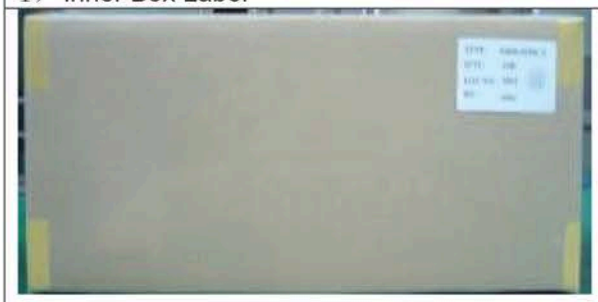
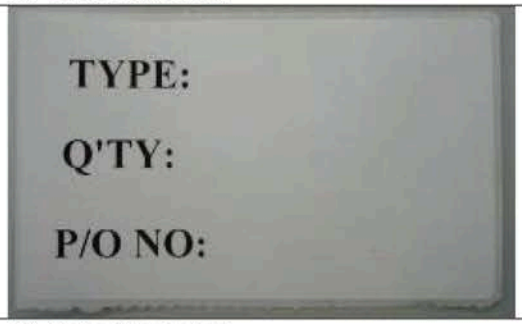
7. DESCRIPTION of BOX LABEL

	
1） Inner Box Label	2） Inner Box Label
	
3） Outer Box Label	4） Outer Box Label