Product Specification

GOODARK Type

MBRB1040CT

Construction : : Schottky Barrier Rectifier

Application : For General Purpose

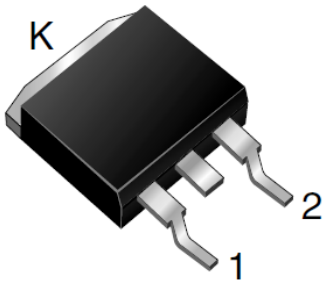
（Manufacturer）:

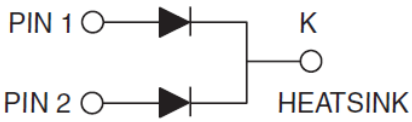
Suzhou Goodark Electronics Co.,Ltd

Prepared on May. 10th, 2011

Prepared: R & D Department

Approva: QRA Department





SCHOTTKY BARRIER RECTIFIER

10 AMPERES

40 VOLTS

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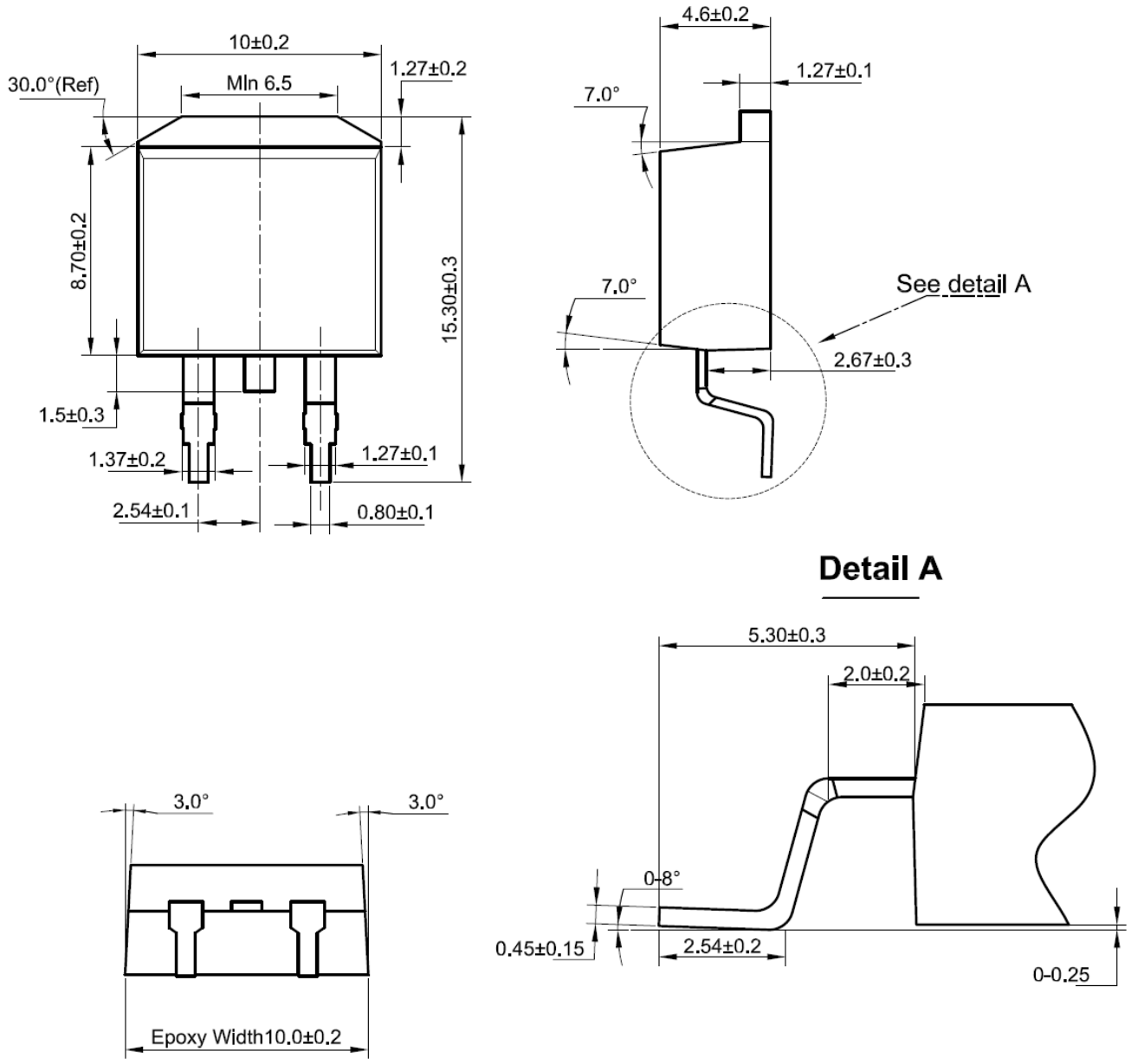
Pb-free Plating

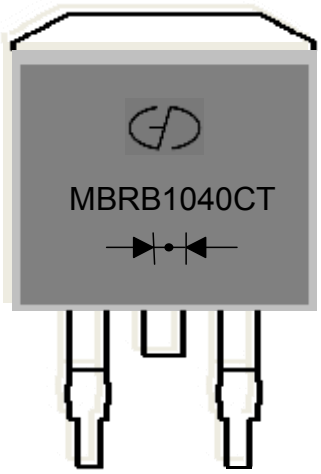
1. Package Outline (TO263)

UNIT:mm



Lead Frame Material : Copper Plating: Pure Tin Plating

2.MARKING



1. Part Name : MBRB1040CT
2. Logo Mark:
3. Polarity：

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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**	**MBRB1040CT**	**UNIT**
Maximum repetitive peak reverse voltage			V_{RRM}	40	V
Working peak reverse voltage			V_{RWM}	40	V
Maximum DC blocking voltage			V_{DC}	40	V
Maximum average forward rectified current at Tc=105°C total device per diode			$I_{F(AV)}$	10 5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	125	A
Peak repetitive reverse current per leg at tp=2.0us ，1KHz			I_{RRM}	0.5	A
Isolation voltage (TO220F-AB only) from terminal to heatsink t = 1 min			VAC	1500	V
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=5.0A IF=5.0A	Tc=25°C Tc=125℃	VF	0.70 0.57	V
Maximum reverse current per leg at working peak Reverse voltage		Tj=25°C Tj=100°C	IR	100 10.0	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

(Tc=25℃ Unless otherwise noted)

Rating and Characteristic Curves

(Tc=25℃ unless otherwise noted)

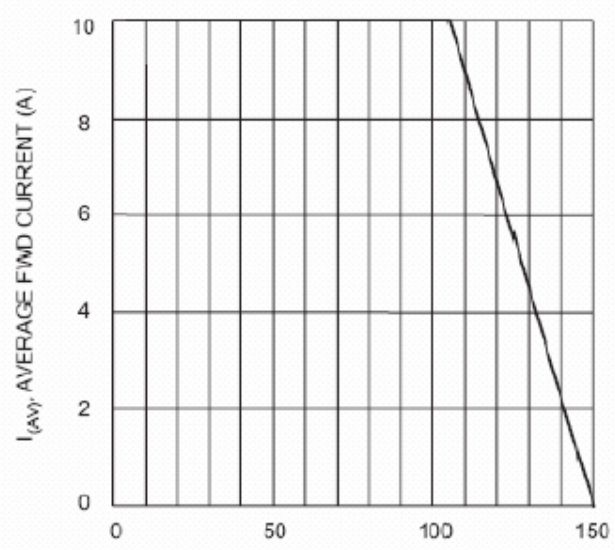

Fig. 1 Forward Current Derating Curve

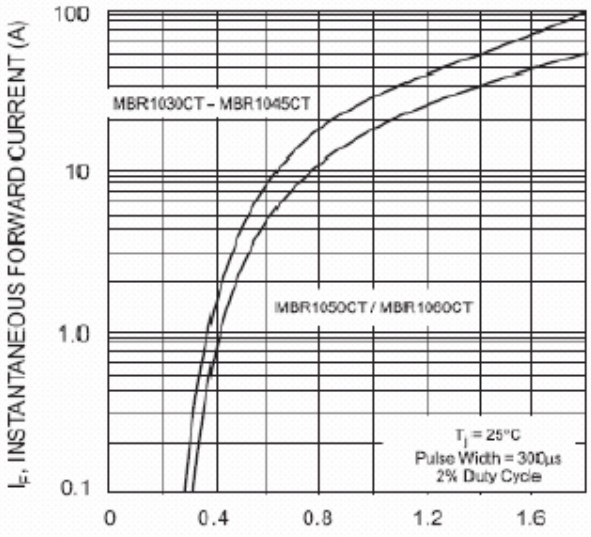

Fig. 2 Typical Forward Characteristics

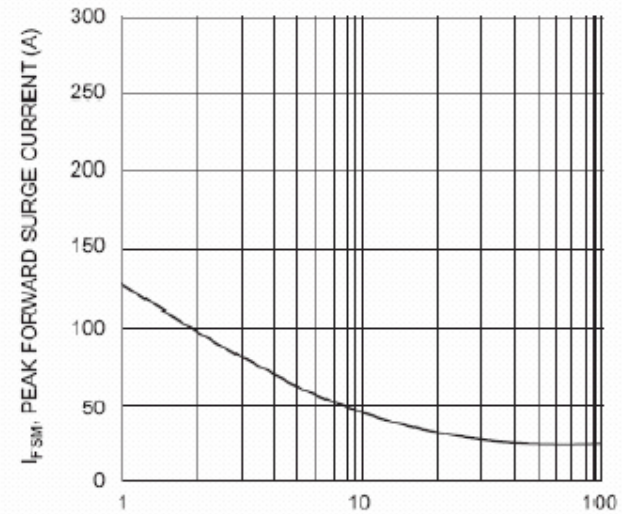

Fig. 3 Max Non-Repetitive Surge Current

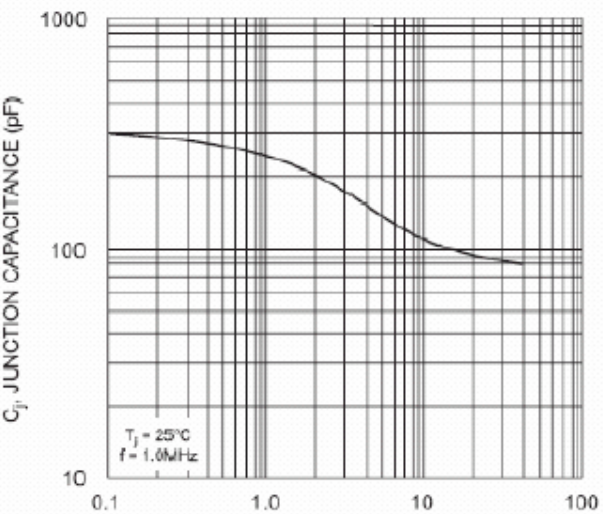

Fig. 4 Typical Junction Capacitance

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6. Packing Specification

6.1 Tube packing

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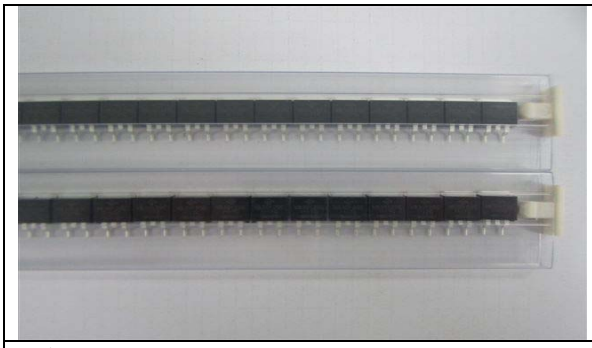
<tr><td>  </td><td> </td></tr>
<tr><td>1 ）Tube : 50units</td><td>2）Inner Box: 20 tube(1000units)</td></tr>
<tr><td colspan="2"> </td></tr>
<tr><td colspan="2">3） Outer Box: 10 inner box (10,000units)</td></tr>
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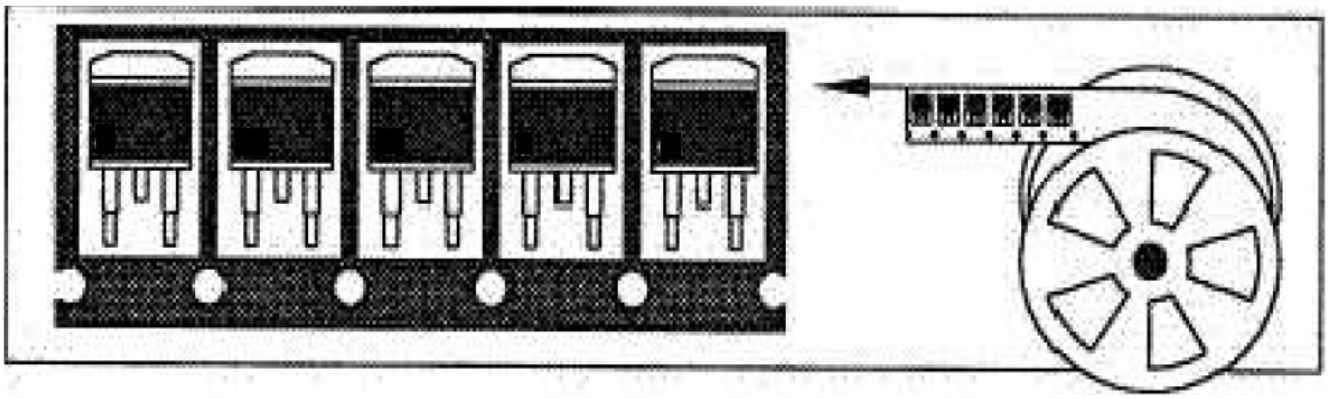
6.2 Tape&reel packing

Packing size:800 /reel(13’ reel)



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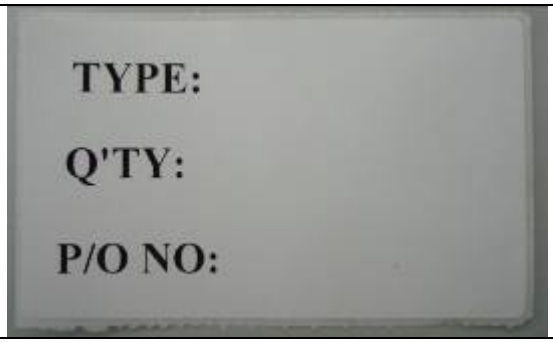
7. DESCRIPTION of BOX LABEL

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

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