Product Specification

GOODARK Type

MBRH30150CT/MBRFH30150CT

Construction : Schottky Barrier Rectifier

Application : For General Purpose

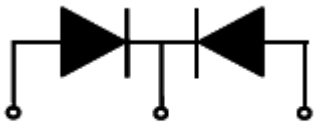
（Manufacturer）:

Suzhou Goodark Electronics Co.,Ltd

Prepared on April. 17th, 2012

Prepared: R & D Department

Approval：QRA Deparment



1. Anode 2.Cathode 3. Anode

SCHOTTKY BARRIER RECTIFIER

30 AMPERES

150VOLTS

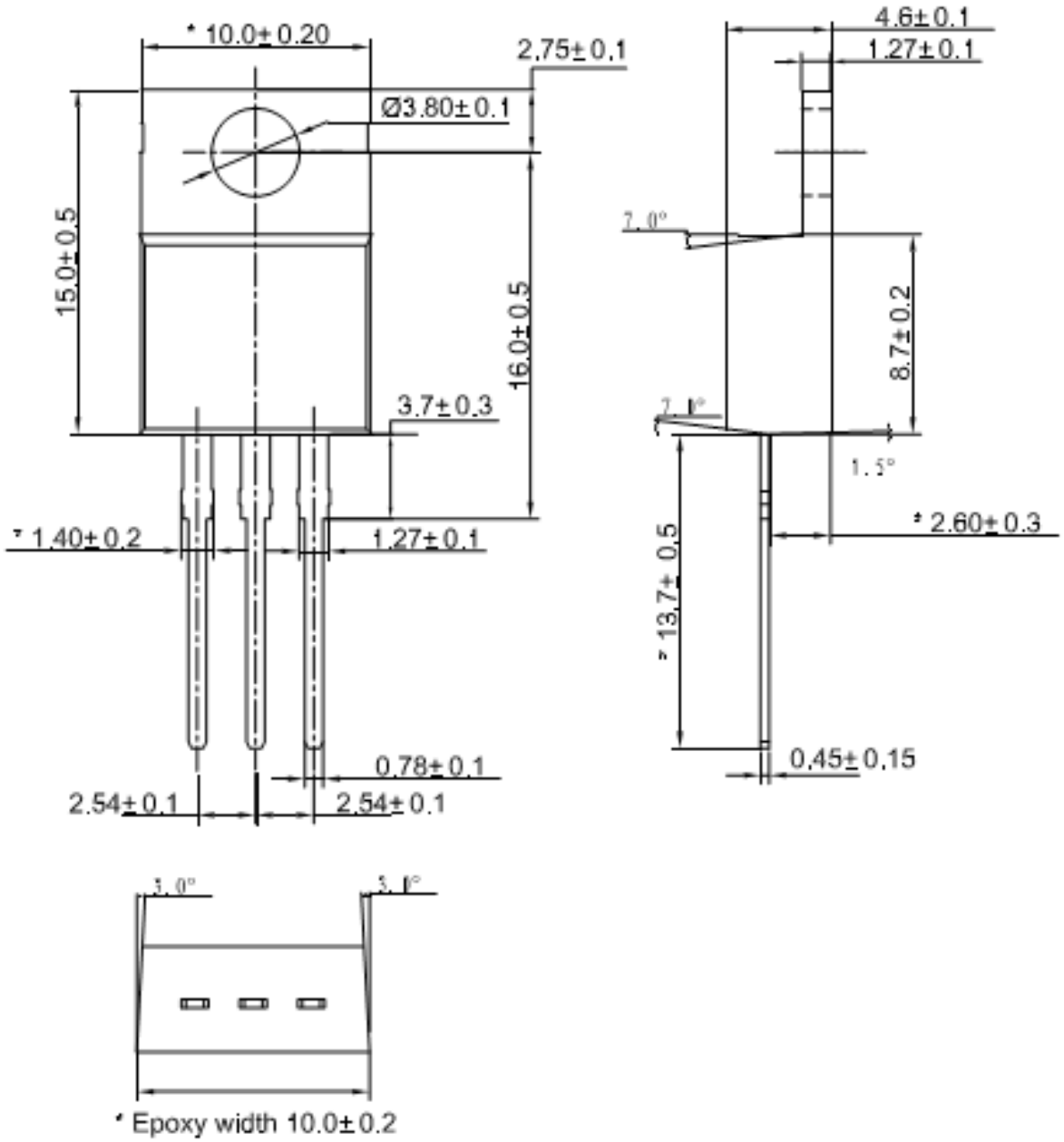
Low Vf <0.85V(15A)

CONTENTS

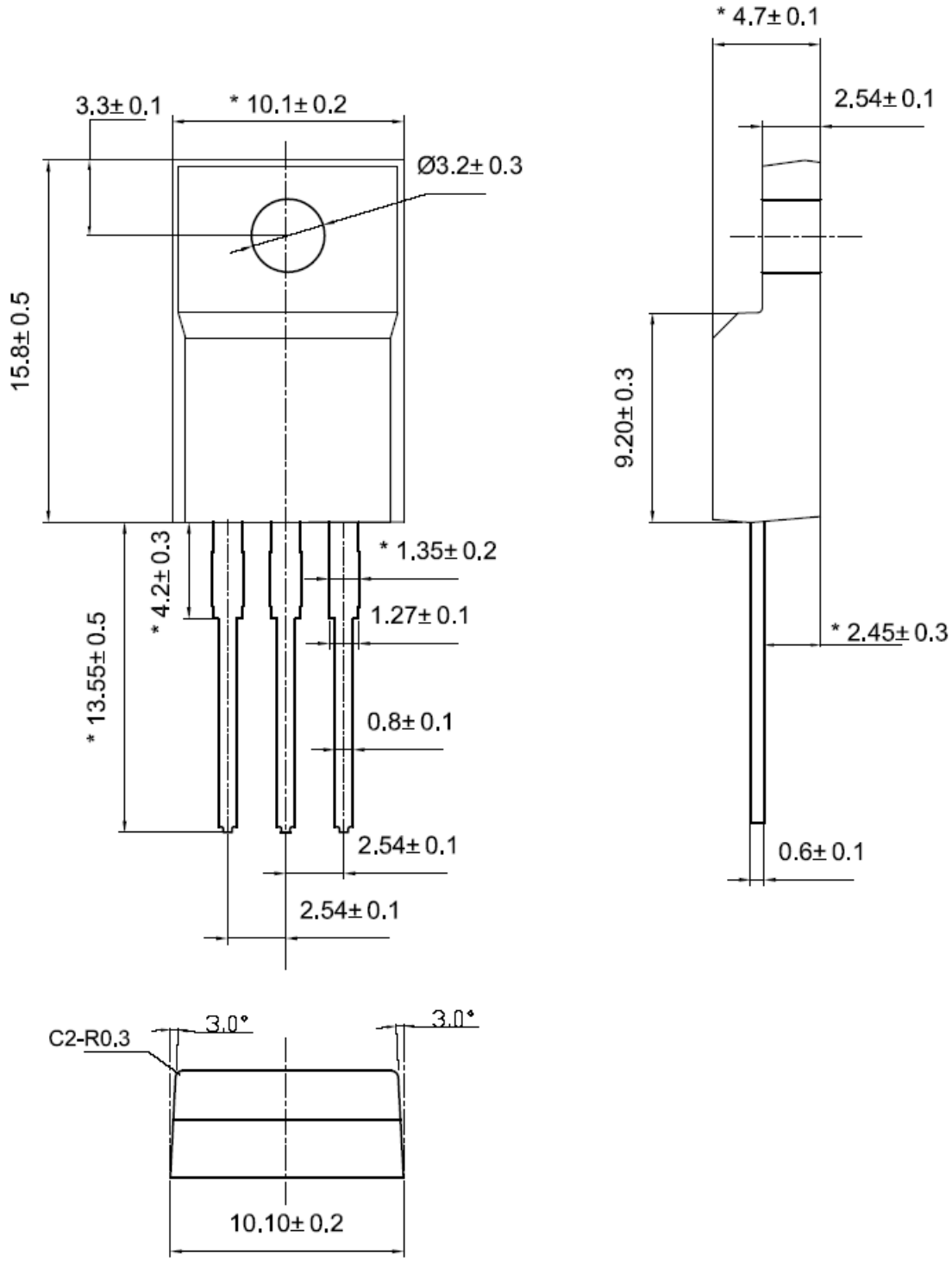
Pb-free Plating

1. Package Outline (TO220-AB)

UNIT:mm



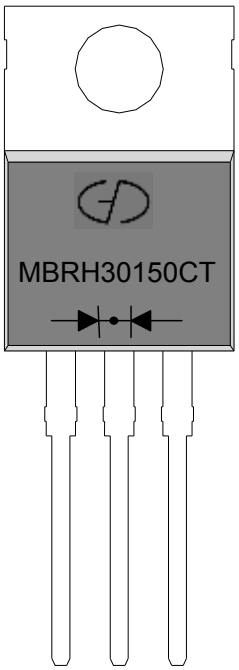
Package Outline (TO220F-AB)



Lead Frame Material : Copper Plating: Pure Tin Plating

Pb-free Plating

2.MARKING



1. Part Name : MBRH30150CT(TO220)
   MBRFH30150CT(TO220F)
2. Logo Mark:
3. Polarity：

Pb-free Plating

3.Features& Mechanical Characteristics Features

- **Plastic package has underwriters Laboratory Flammability Classification 94V-0**
- **Dual rectifier construction，positive center tap**
- **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: 1.9grams（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**

4.Maximum Ratings and Electrical Characteristics

MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS(TC=25°C unless otherwise moted)					
PARAMETER	**TEST CONDITIONS**		**SYMBOL**	**MBR(F)H30150CT**	**UNIT**
Maximum repetitive peak reverse voltage			V_{RRM}	150	V
Working peak reverse voltage			V_{RWM}	150	V
Maximum DC blocking voltage			V_{DC}	150	V
Maximum average forward rectified current at Tc=105°C total device per diode			$I_{F(AV)}$	15 30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	200	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
Isolation voltage (TO220F only) from terminal to heatsink t = 1 sec			VAC	1500	V
Storage temperature range			T_{STG}	—55 to+150	°C
Maximum instantaneous forward voltage per leg	IF=15A IF=15A	TC=25℃ TC=125℃	VF	0.85 0.75	V
Maximum reverse current per leg at working peak Reverse voltage		TJ=25℃ TJ=100°C	IR	500 50	uA mA

Thermal Characteristics Ta=25℃ unless otherwise noted

Symbol	Parameter	Max （TO220AB）	Max （TO220AB）	Unit
$R_{\theta JC}$	Thermal Resistance，Junction to Case per Leg	2.0	4.0	°C /W
$R_{\theta JA}$	Thermal Resistance，Junction to Ambient per Leg	62.5	62.5	°C /W

Note：

1. Screw mounting with 4-40 screw，where washer diameteris≤4.9mm(0.19〃)
2. Pulse test:300us pulse width,1% duty cycle

Pb-free Plating

5. Rating and Characteristic Curves

(TA = 25 °C unless otherwise noted)

FIG.1- FORWARD CURRENT DERATING CURVE

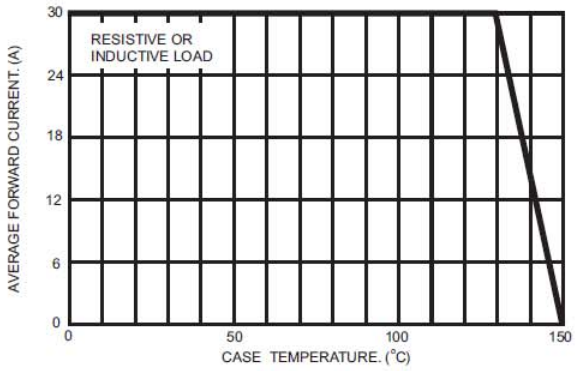


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

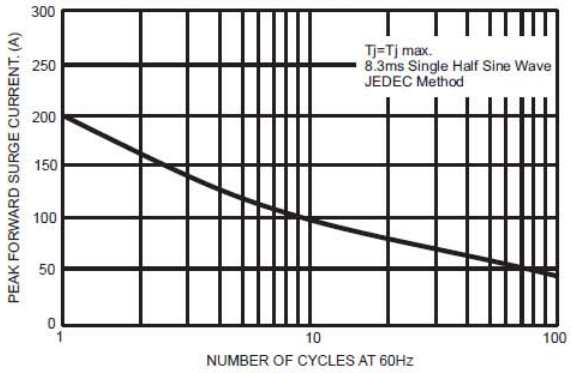


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

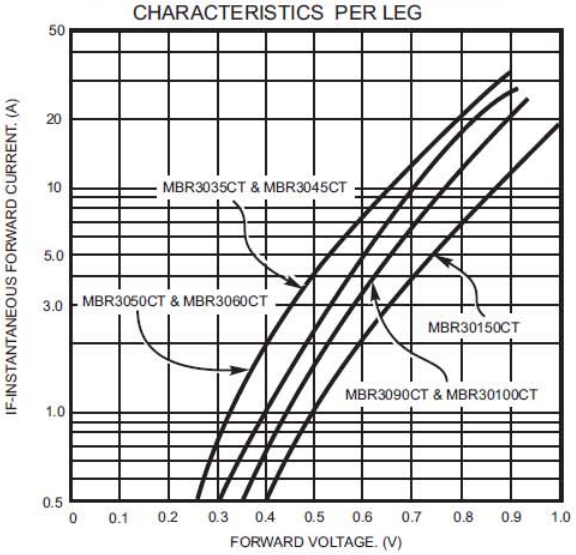


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

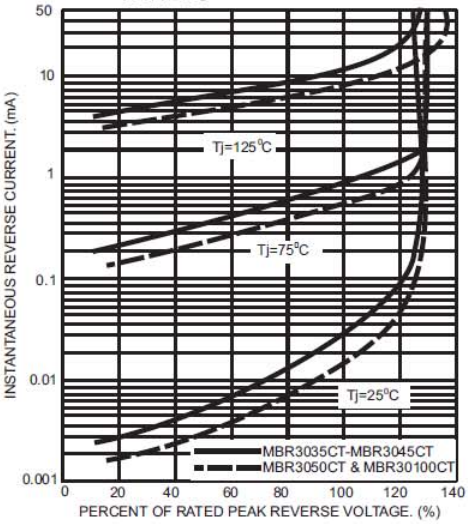


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

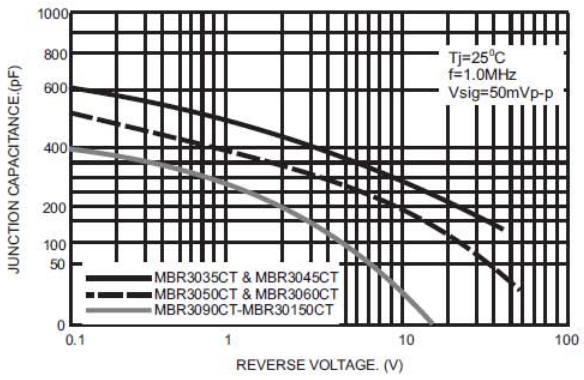
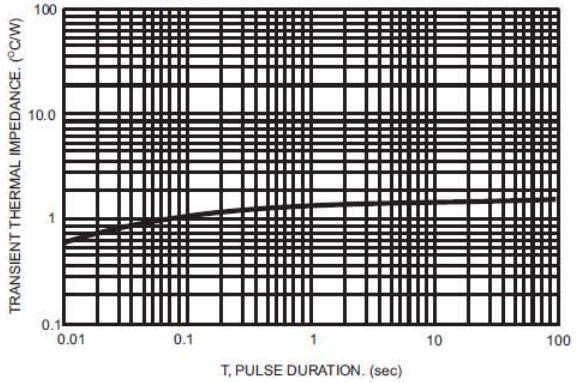


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



Pb-free Plating

6. Packing Specification

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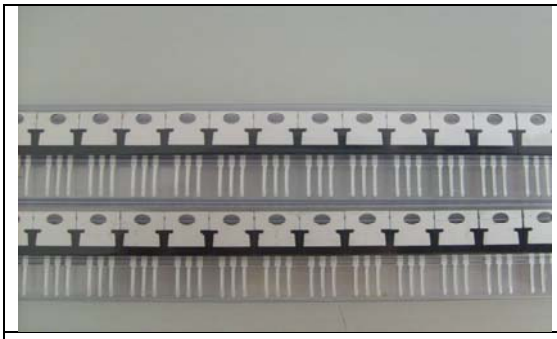
<tr><td>  </td><td>  </td></tr>
<tr><td>1 ）Tube : 50units</td><td>2）Inner Box: 20 tube(1000units)</td></tr>
<tr><td colspan="2">  </td></tr>
<tr><td colspan="2">3） Outer Box: 10 inner box (10,000units)</td></tr>
</table>

7. DESCRIPTION of BOX LABEL

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<tr><td>  </td><td> 
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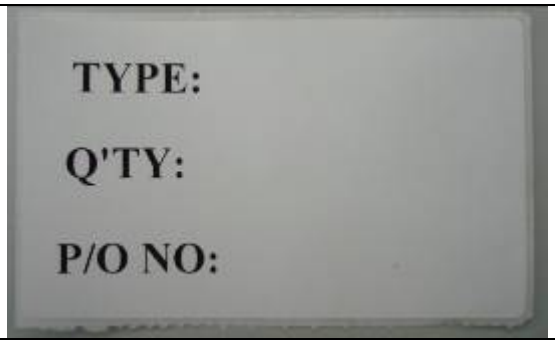
<tr><td>1） Inner Box Label</td><td>2）Inner Box Label</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>3）Outer Box Label</td><td>4）Outer Box Label</td></tr>
</table>

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