

Product Specification

GOODARK Type

MBR1560, MBRF1560

Construction : Schottky Barrier Rectifier

Application : For General Purpose

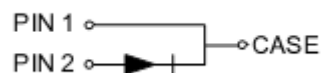
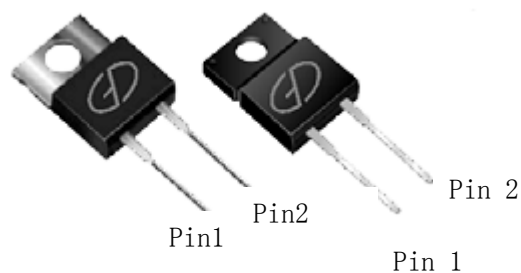
(Manufacturer) :

Suzhou Goodark Electronics Co., Ltd

Prepared on Sep. 17th, 2008

Prepared: R & D Department

Approval: QRA Department



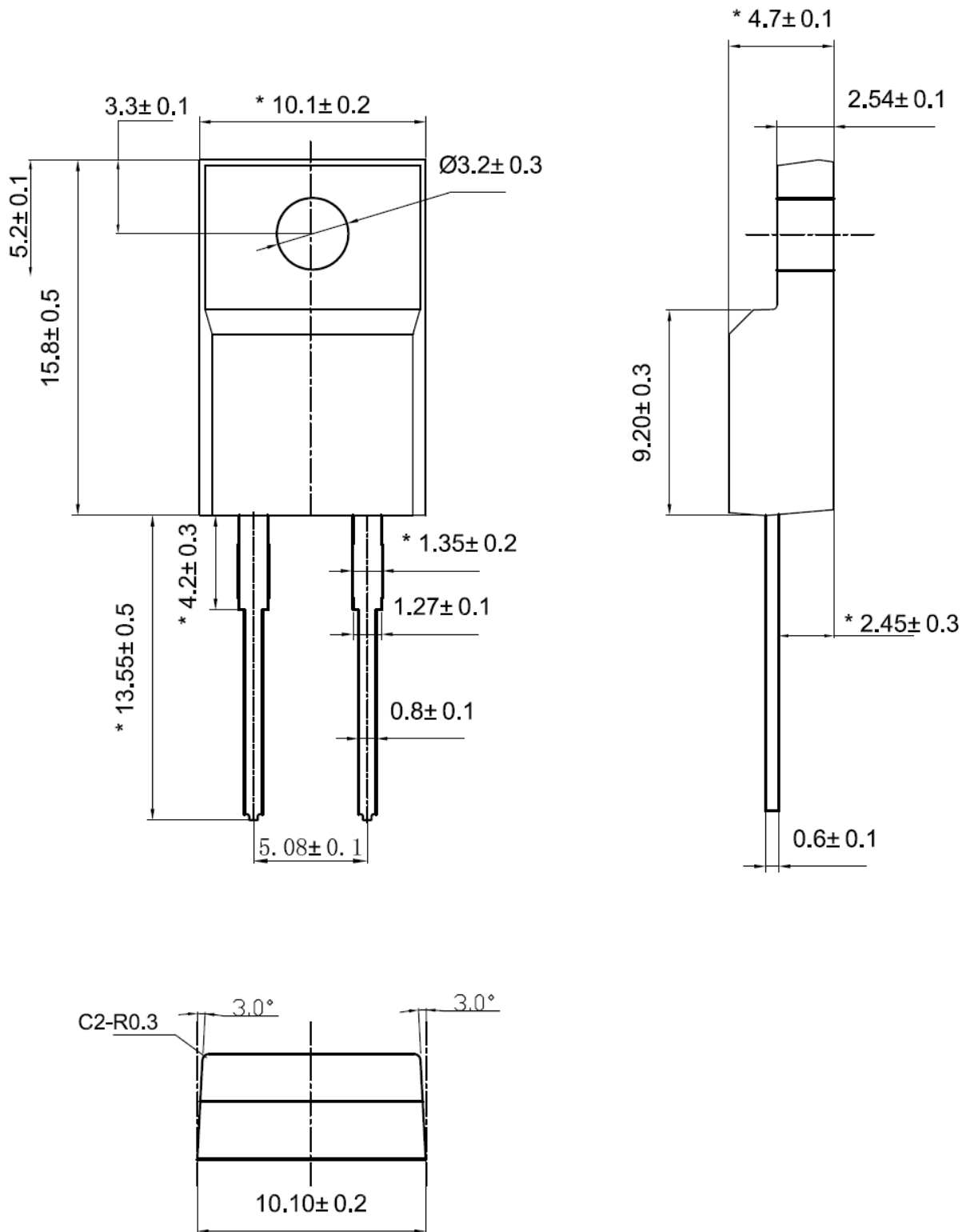
SCHOTTKY BARRIER RECTIFIER
15 AMPERES
60 VOLTS

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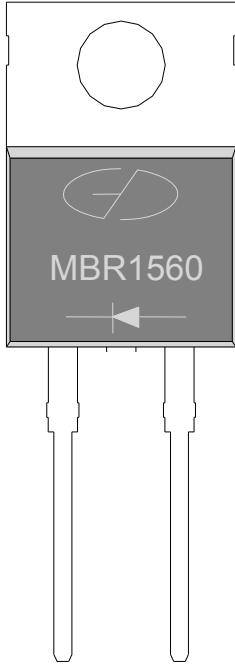


Package Outline (ITO220-AC)



Lead Frame Material : Copper Plating: Pure Tin Plating

2. MARKING



1. Part Name : MBR1560(TO220-AC)
MBRF1560(ITO220-AC)
2. Logo Mark: 
3. Polarity: 



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	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=100°C total device per diode			IF(AV)	15 A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			IFSM	200 A
Peak repetitive reverse current per leg at tp=2.0us , 1KHz			IRRM	1.0 A
Operating junction temperature range			TJ	—55 to+150 °C
Storage temperature range			TSTG	—55 to+150 °C
Voltage rate of change (rated VR)			DV/dt	10000 V/us
Isolation voltage (ITO220 only) from terminal to heatsink t = 1 sec			VAC	1500 V
Maximum instantaneous forward voltage per leg	IF=15A	TC=25°C	VF	0.72
	IF=15A	TC=125°C		0.62
Maximum reverse current per leg at working peak Reverse voltage		TJ=25°C	IR	800 uA
		TJ=100°C		50 mA

Thermal Characteristics Ta=25°C unless otherwise noted

Symbol	Parameter	Max (TO220AC)	Max (ITO220AC)	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0	4.0	°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	°C /W

Note:

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

5. Rating and Characteristic Curves

($T_c=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

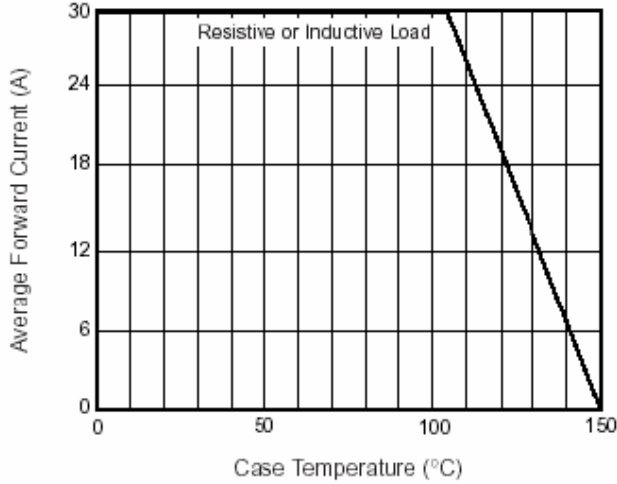


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

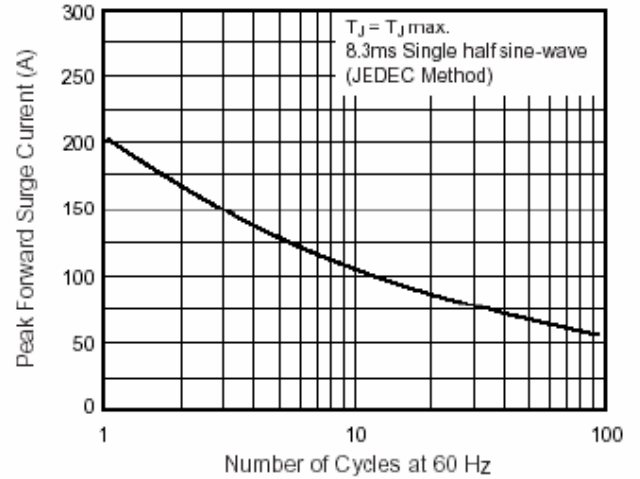


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

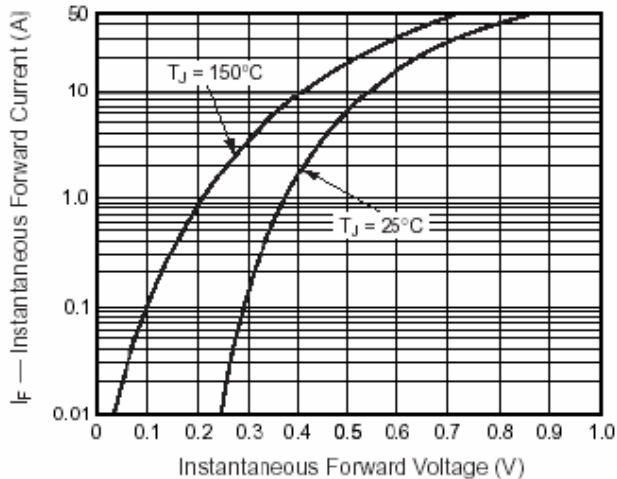


Fig. 4 – Typical Reverse Characteristics Per Leg

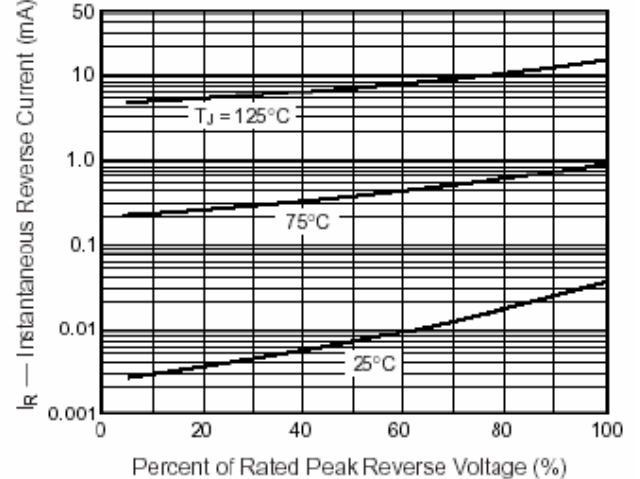


Fig. 5 – Typical Junction Capacitance Per Leg

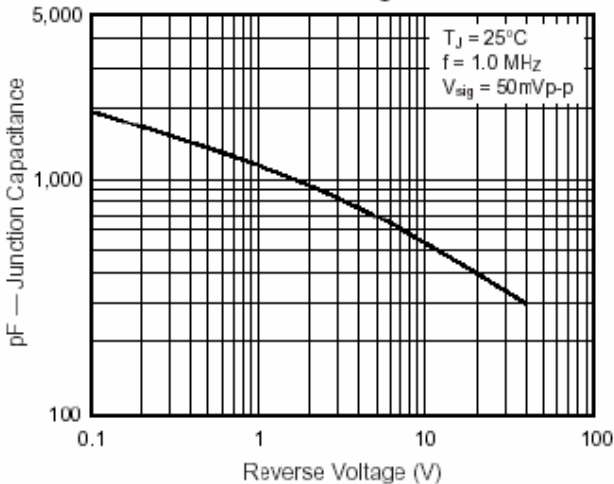
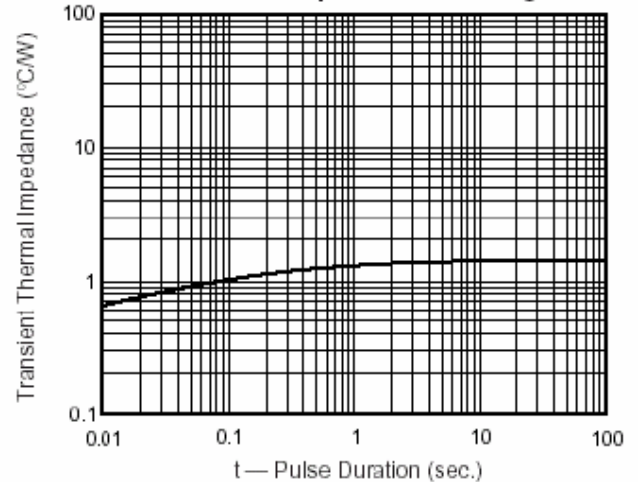
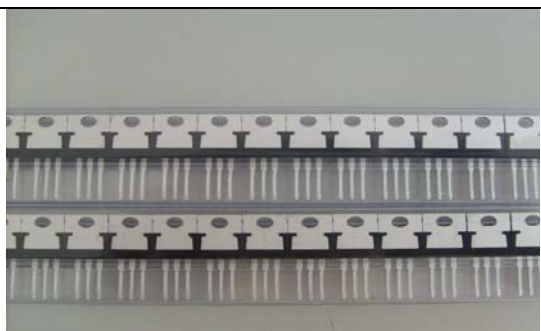


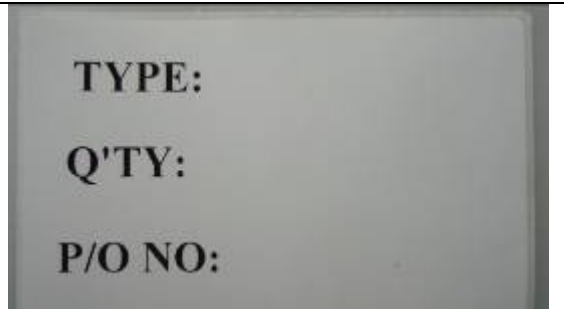
Fig. 6 – Typical Transient Thermal Impedance Per Leg



6. Packing Specification

	
1) Tube : 50units	2) Inner Box: 20 tube(1000units)
	
3) Outer Box: 10 inner box (10,000units)	

7. DESCRIPTION of BOX LABEL

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