



Surge Components Inc.

Product Specification

Surge Type

MBRH30150CT/MBRFH30150CT

Construction : Schottky Barrier Rectifier

Application : For General Purpose

(Manufacturer) :

Surge Components Inc.

Prepared on April. 17th, 2012

Prepared: R & D Department

Approval: QRA Department



1. Anode 2. Cathode 3. Anode

SCHOTTKY BARRIER RECTIFIER

30 AMPERES

150VOLTS

Low Vf <0.85V(15A)

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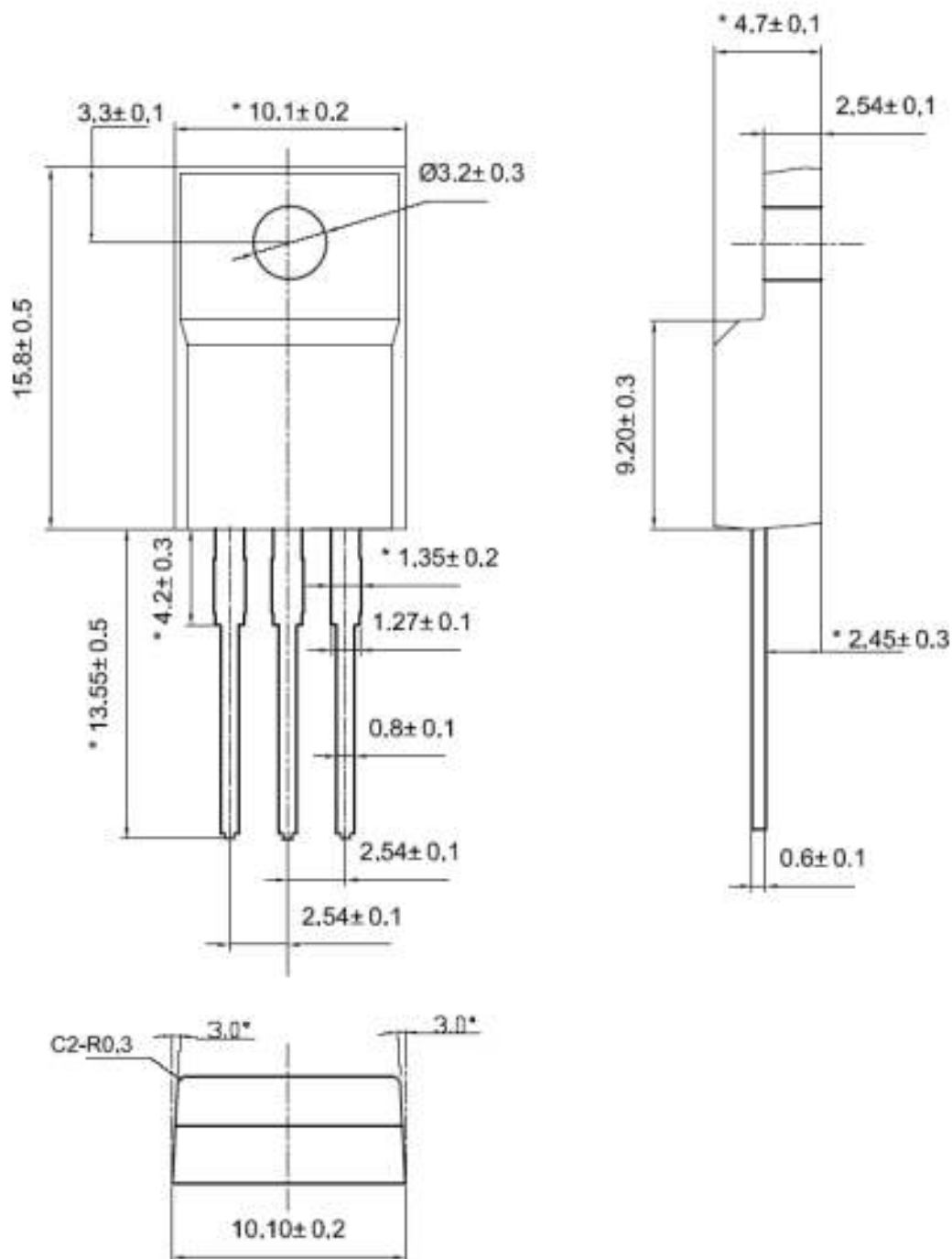
UNIT:mm





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Package Outline (TO220F-AB)



Lead Frame Material : Copper

Plating: Pure Tin Plating



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2. MARKING



1. Part Name : MBRH30150CT(TO220)
MBRFH30150CT(TO220F)

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 noted)				
PARAMETER	TEST CONDITIONS		SYMBOL	UNIT
Maximum repetitive peak reverse voltage			VRRM	V
Working peak reverse voltage			VRWM	V
Maximum DC blocking voltage			VDC	V
Maximum average forward rectified current at Tc=105°C total device per diode			IF(AV)	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			IFSM	A
Peak repetitive reverse current per leg at tp=2.0us , 1KHz			IRRM	A
Voltage rate of change (rated VR)			DV/dt	V/us
Operating junction temperature range			TJ	°C
Isolation voltage (TO220F only) from terminal to heatsink t = 1 sec			VAC	V
Storage temperature range			TSTG	°C
Maximum instantaneous forward voltage per leg	IF=15A IF=15A	TC=25°C TC=125°C	VF	V
Maximum reverse current per leg at working peak Reverse voltage		TJ=25°C TJ=100°C	IR	uA mA

Thermal Characteristics Ta=25°C unless otherwise noted

Symbol	Parameter	Max (TO220AB)	Max (TO220AB)	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



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5. Rating and Characteristic Curves

(TA = 25 °C unless otherwise noted)

FIG.1- FORWARD CURRENT DERATING CURVE

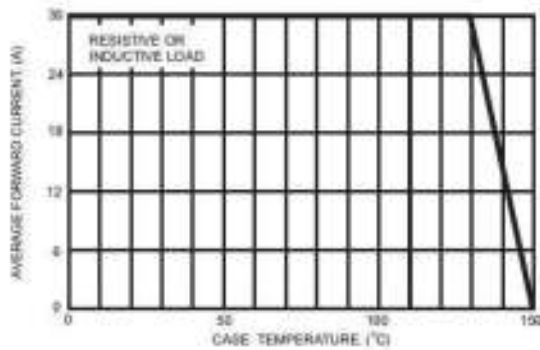


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

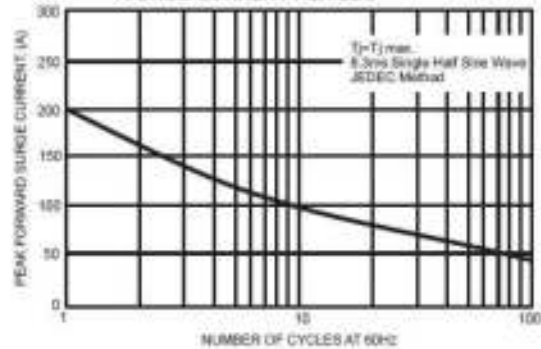


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

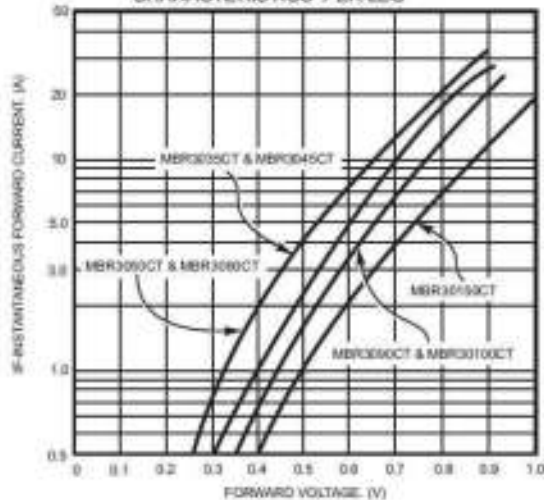


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

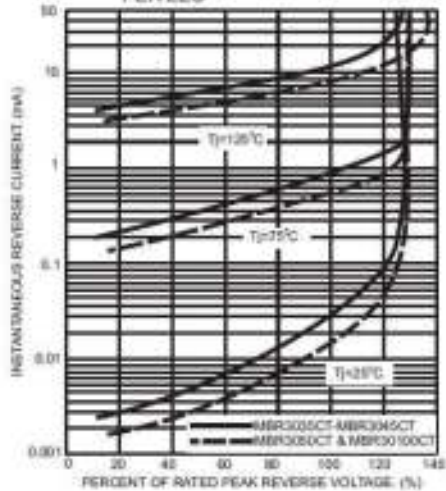


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

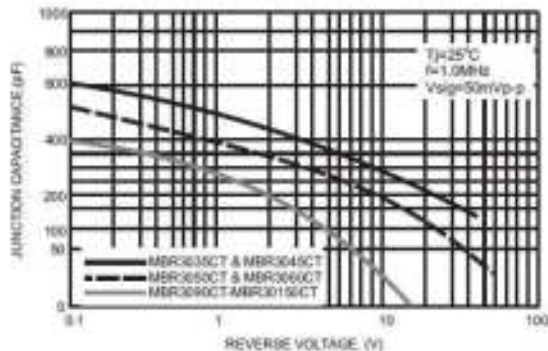


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

