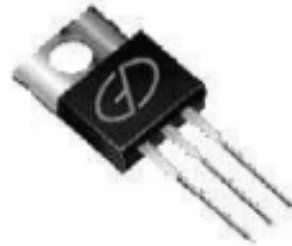




Product Specification

Surge Type
MBR20100CT

Construction : : Schottky Barrier Rectifier
Application : For General Purpose
(Manufacturer) :
Surge Components Inc.
Prepared on Sep. 17th, 2008
Prepared: R & D Department
Approval: QRA Department



1. Anode 2. Cathode 3. Anode

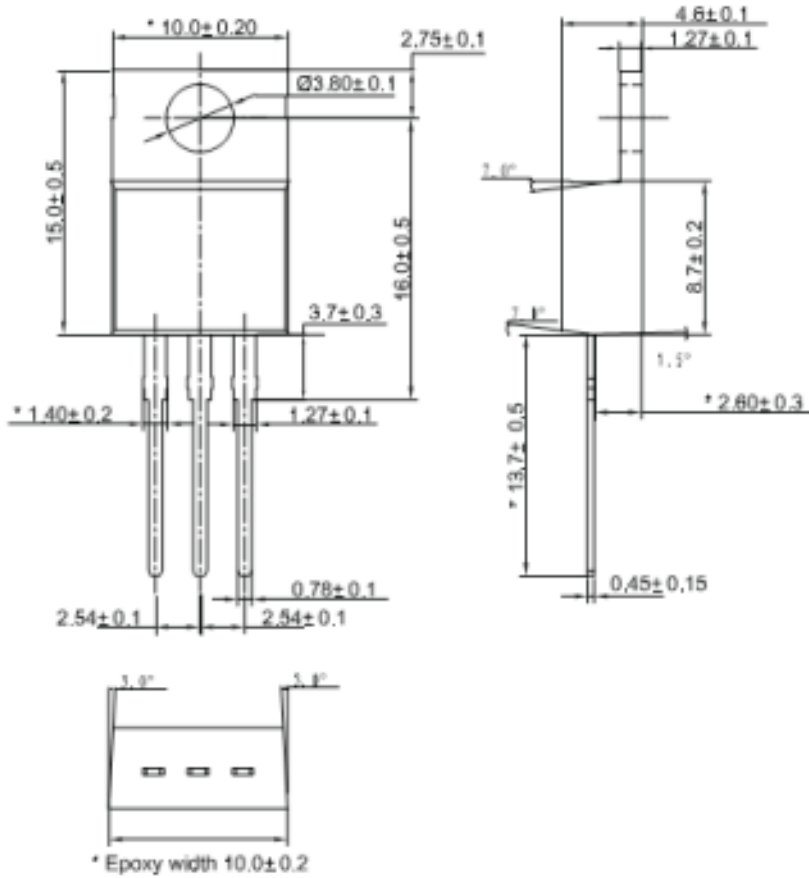
SCHOTTKY BARRIER RECTIFIER
20 AMPERES
100 VOLTS

CONTENTS

1. Package Outline
2. Marking
3. Features & Mechanical Characteristics
4. Maximum Ratings and Electrical Characteristics
5. Rating and characteristic Curves
6. Packing Specification PACKAGING SPECIFICATION
7. Description of Box Label

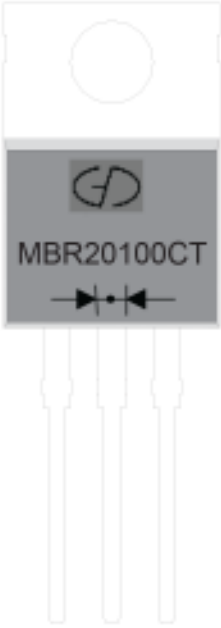
1. Package Outline (TO220-AB)

UNIT:mm



Lead Frame Material : Copper Plating: Pure Tin Plating

2.MARKING



1. Part Name : MBR20100CT

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	MBR20100CT	UNIT
Maximum repetitive peak reverse voltage			VRRM	100	V
Working peak reverse voltage			VRWM	100	V
Maximum DC blocking voltage			VDC	100	V
Maximum average forward rectified current at Tc=105°C total device per diode			IF(AV)	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			IFSM	150	A
Peak repetitive reverse current per leg at tp=2.0us , 1KHz			IRRM	0.5	A
Voltage rate of change (rated VR)			DV/dt	10000	V/us
Operating junction temperature range			TJ	-65 to+150	°C
Storage temperature range			TSTG	-65 to+150	°C
Maximum instantaneous forward voltage per leg	IF=10A IF=10A	Tc=25°C Tc=125°C	VF	0.80 0.70	V
	IF=20A IF=20A	Tc=25°C Tc=125°C	VF	0.95 0.85	V
Maximum reverse current per leg at working peak Reverse voltage			TJ=25°C TJ=100°C	IR	100 6
					uA mA

Thermal Characteristics Ta=25°C unless otherwise noted

Symbol	Parameter	Max	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0	°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	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



5. Rating and Characteristic Curves

(TA = 25 °C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

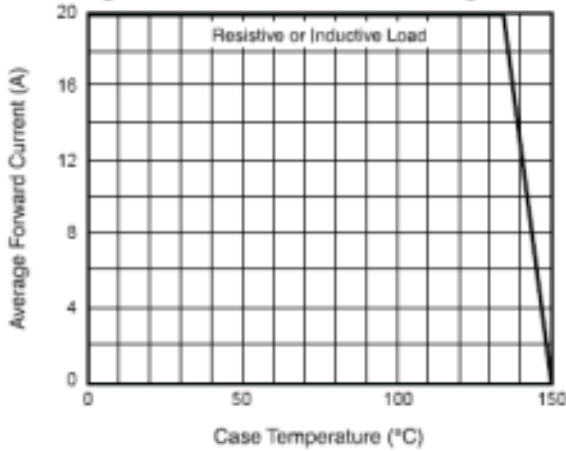


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

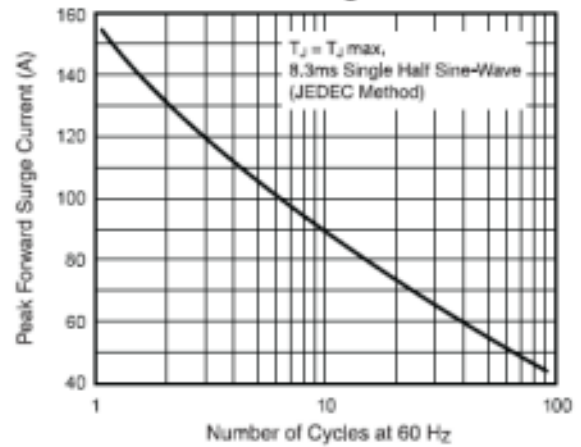


Fig. 3 - Typical Instantaneous Forward Characteristics

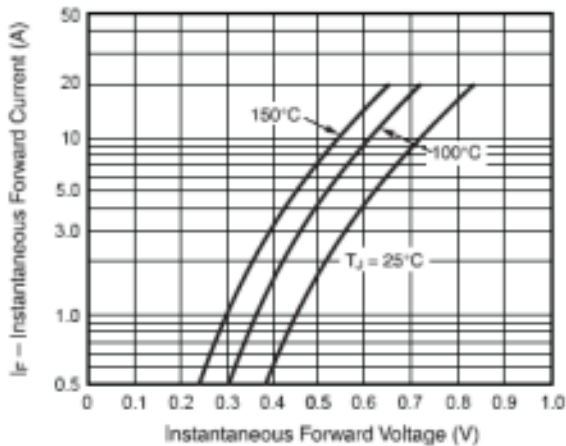


Fig. 4 - Typical Reverse Characteristics

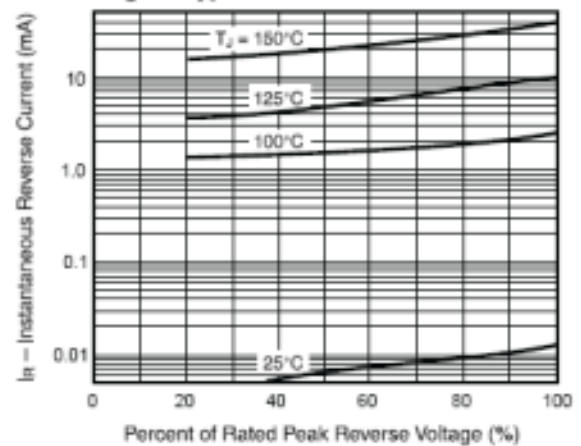


Fig. 5 - Typical Transient Thermal Impedance

