SEMICONDUCTOR

DATA SHEET

MBR1020CT~MBR10200CT

10A SCHOTTKY BARRIER RECTIFIER

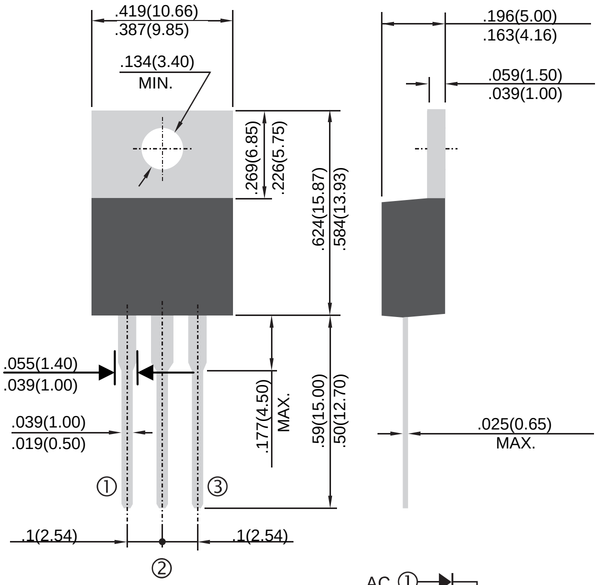
FEATURES

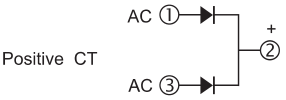
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: TO-220 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

TO-220AB Unit:inch(mm)





Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 1020CT	MBR 1030CT	MBR 1040CT	MBR 1050CT	MBR 1060CT	MBR 1080CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	Units
Peak Repetitive Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	VRRM VRWM VR	20	30	40	50	60	80	100	150	200	Volts
RMS Reverse Voltage	VR(RMS)	14	21	28	35	42	56	70	105	140	Volts
Average Rectified Output Current @TC = 95°C	IF	10									**Amp**
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150							120		**Amps**
Forward Voltage @IF = 5.0A	VF	**0.55**			**0.75**		0.85		0.90	0.99	Volts
Peak Reverse Current @TA = 25°C **At Rated DC Blocking Voltage @TA = 100°C**	IRM	0.1 50							0.025 7		mA
Typical Thermal Resistance	RθJC	3									°C /W
	RθJA	60									
Typical Junction Capacitance (Note 1)	Cj	170									pF
Operating and Storage Temperature Range	Tj, TSTG	-55 to +150									℃

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

DEVICE CHARACTERISTICS

MBR1020CT~MBR10200CT

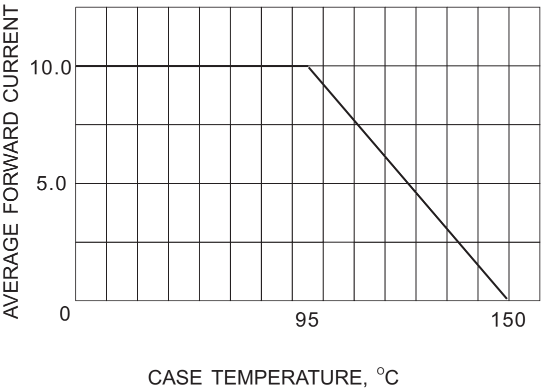


Fig.1- FORWARD CURRENT DERATING CURVE

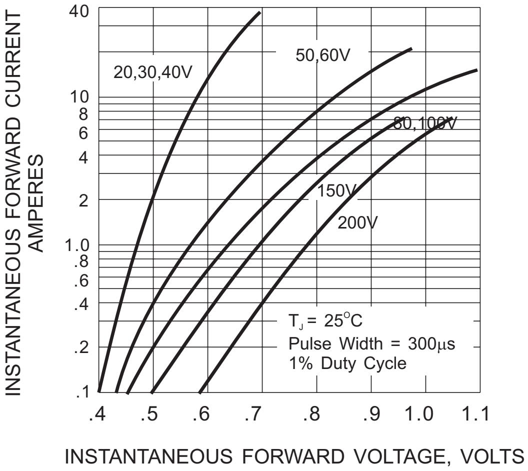


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

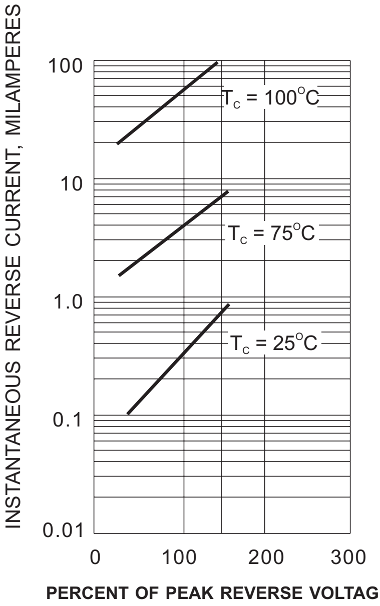


Fig.3- TYPICAL REVERSE CHARACTERISTIC

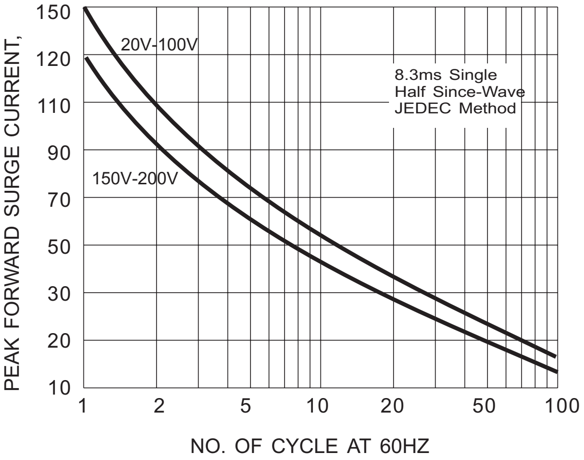


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

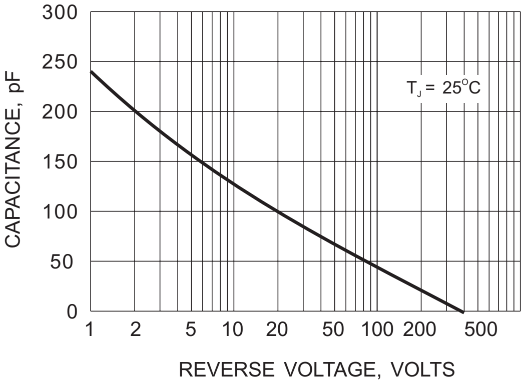
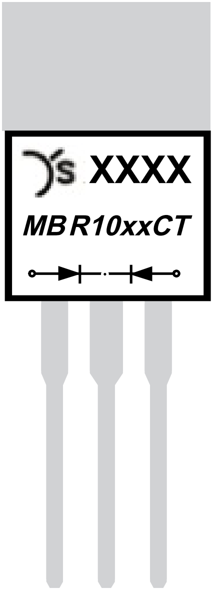


Fig.5- TYPICAL JUNCTION CAPACITANCE

Marking Information



Line 1: YS Logo and Date code

The first half of Line 1: YS logo

The second half of Line 1:

YYWW: Year,

YY**WW**: Week.

Line 2 : Device name and Package type

MBR: Schottky Barrier Rectifier

10xx: 10 Ampere Series product.

10**xx**: The peak reverse Voltage of product.

Line 3 : Device Structure symbol

TO/ITO220 包装规范

Packing 包装	Dimension 尺寸	Qty 数量	Picture 图示
Bag/Tube 袋/管装	527mm*33mm*7mm	50 PCS	
Inner box 内盒	555mm*140mm*55mm	2000 PCS	  标签贴盒盖正面中心处
Carton 外箱	575mm*285mm *155mm	8000 PCS	 外箱两侧贴标签位置置