



DATA SHEET

SEMICONDUCTOR

MBR2020CT~MBR20200CT

20 AMPERE SCHOTTKY BARRIER RECTIFIERS VOLTAGE - 20 to 200 Volts CURRENT - 20.0 Amperes

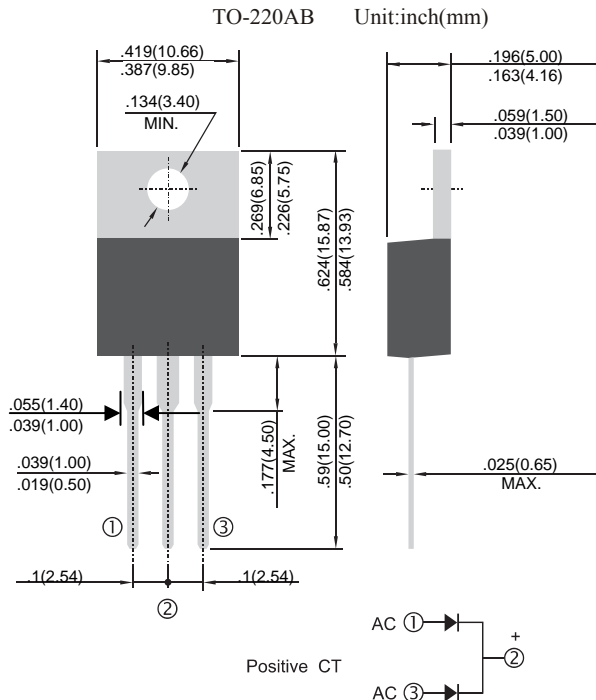


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- 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-220AB molded plastic
- Terminals: Lead, solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half wave 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

SYMBOL	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	UNIT
	2020CT	2030CT	2040CT	2045CT	2050CT	2060CT	2080CT	20100CT	20150CT	20200CT		
Maximum Recurrent Peak Reverse Volt	20	30	40	45	50	60	80	100	150	200		V
Maximum RMS Volt	14	21	28	31.5	35	42	56	70	105	140		V
Maximum DC Blocking Volt	20	30	40	45	50	60	80	100	150	200		V
Maximum Average Forward Rectified Current at TC=90°C	20.0											A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method)	200								150			A
Maximum Forward Voltage at 10.0A per element	0.55		0.75			0.85		0.95		0.99		V
Maximum DC Reverse Current at Rated TC=25 °C	0.1							0.025				mA
DC Blocking Voltage per element TC=100°C	100							7				
Typical Thermal Resistance(Note 1) RθJA	60											°C /W
Typical Thermal Resistance(Note 2) RθJC	5											°C /W
Typical Junction Capacitance (Note 3) Cj	200											pF
Operating and Storage Temperature Range(Tj & Tstg)	-55 to +150											°C

- NOTES:
- 1.Thermal Resistance Junction to Ambient
 - 2.Thermal Resistance Junction to Case
 - 3.Measured at 1.0MHz and applied reverse voltage of 4.0 volts

DEVICE CHARACTERISTICS

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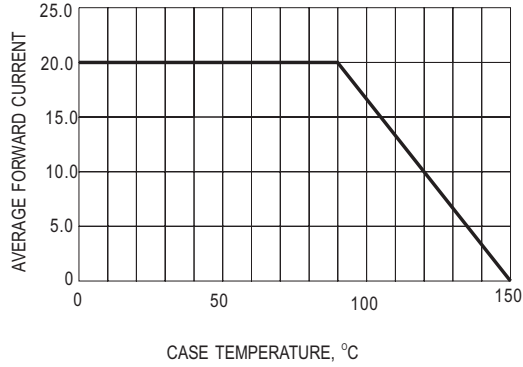


Fig.1- FORWARD CURRENT DERATING CURVE

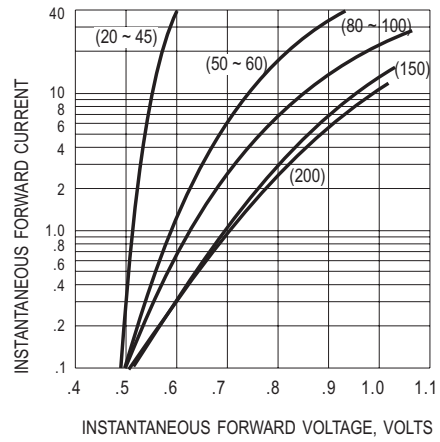


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

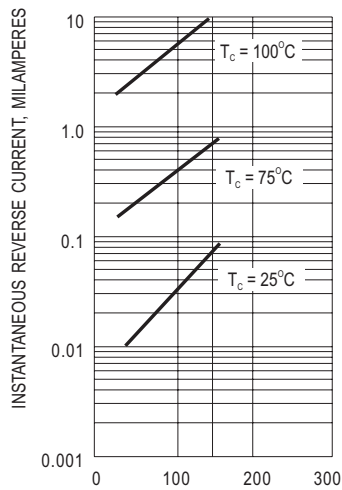


Fig.3- TYPICAL REVERSE CHARACTERISTIC

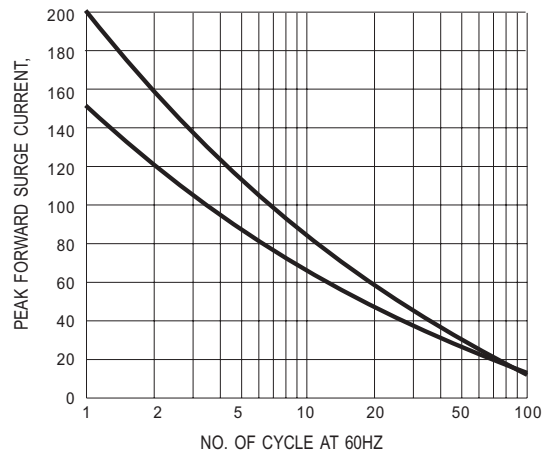


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

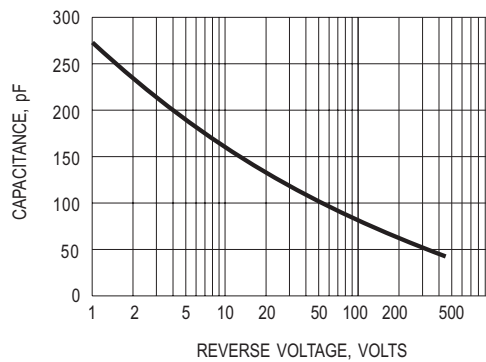
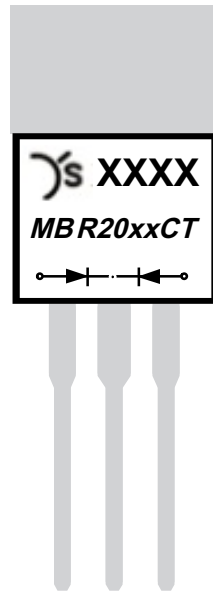


Fig.5- TYPICAL JUNCTION CAPACITANCE



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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,

YYWW: Week.

Line 2 : Device name and Package type

MBR: Schottky Barrier Rectifier

20xx: 20 Ampere Series product.

20xx: 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	 <p>标签贴盒盖正面中心处</p>
Carton 外箱	575mm*285mm *155mm	8000 PCS	 <p>外箱两侧贴标签位置</p>