



# DATA SHEET

SEMICONDUCTOR

## MBR2020FCT THRU MBR20200FCT

### 20 AMPERE SCHOTTKY BARRIER RECTIFIERS



VOLTAGE - 20 to 200 Volts CURRENT - 20.0 Amperes

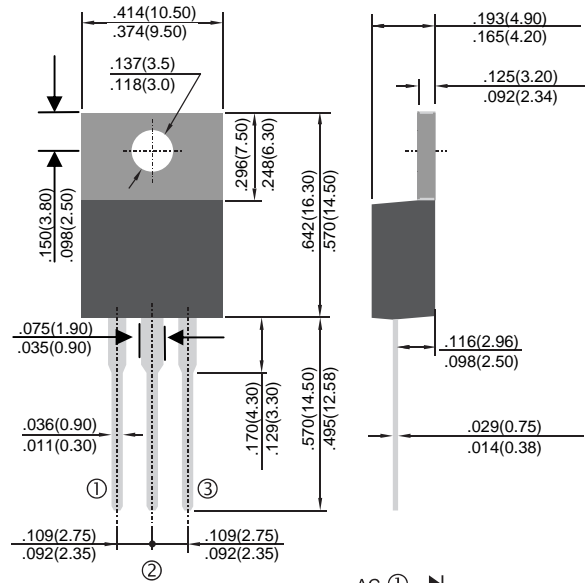
#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 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: ITO-220AB molded plastic
- Terminals: Lead, solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any

ITO-220AB Unit:inch(mm)



Ordering Information	
Part Number	Remark
MBR20xxxFCT-F	General
MBR20xxxFCT-H	Halogen Free
MBR20xxxFCT-A	AEC-Q101 qualified

#### 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%.

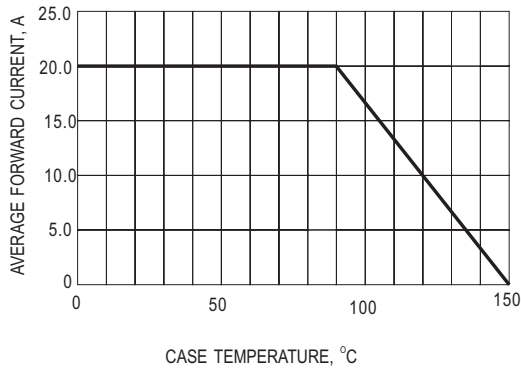
Characteristic	Symbol	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	Units	
		2020FCT	2030FCT	2040FCT	2045FCT	2050FCT	2060FCT	2065FCT	2080FCT	20100FCT	20150FCT	20200FCT		
Peak Repetitive Reverse Voltage	VRRM	20	30	40	45	50	60	65	80	100	150	200	Volts	
Working Peak Reverse Voltage	VRWM													
DC Blocking Voltage	VR													
RMS Reverse Voltage	VR(RMS)	14	21	28	31.5	35	42	45.5	56	70	105	140	Volts	
Average Rectified Output Current @TC = 90°C	IF	20											Amps	
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load For(JEDEC method)	IFSM	200											Amps	
Forward Voltage @IF = 10.0 A	VF	0.55					0.75			0.85		0.90		Volts
Peak Reverse Current @TA = 25°C	IRM	0.1									0.025		mA	
At Rated DC Blocking Voltage @TA = 100°C		100									7			
Typical Thermal Resistance Note	RθJA	60											/W	
Operating and Storage Temperature Range	Tj, TSTG	-55 to +150												

NOTES:

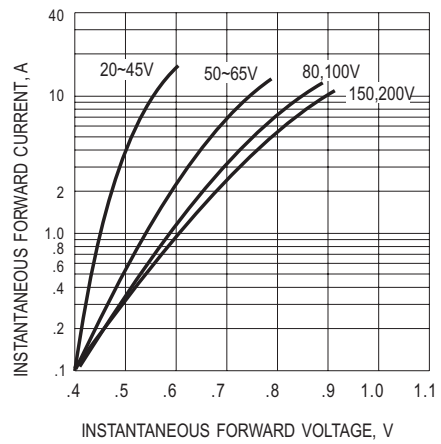
Thermal Resistance Junction to Ambient

# DEVICE CHARACTERISTICS

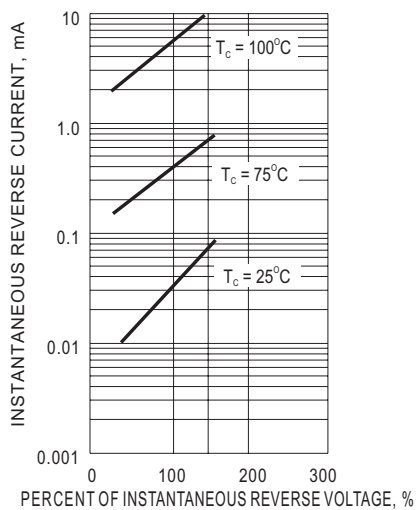
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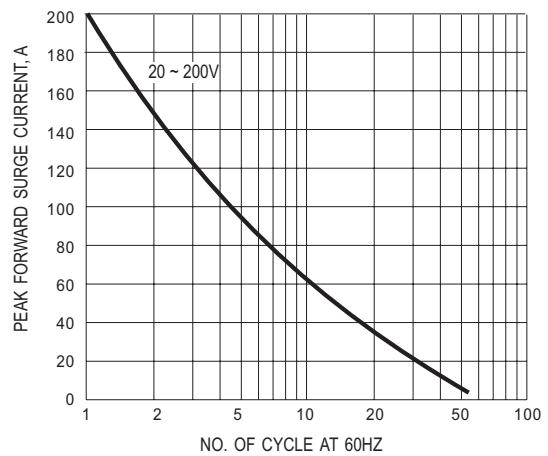
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**

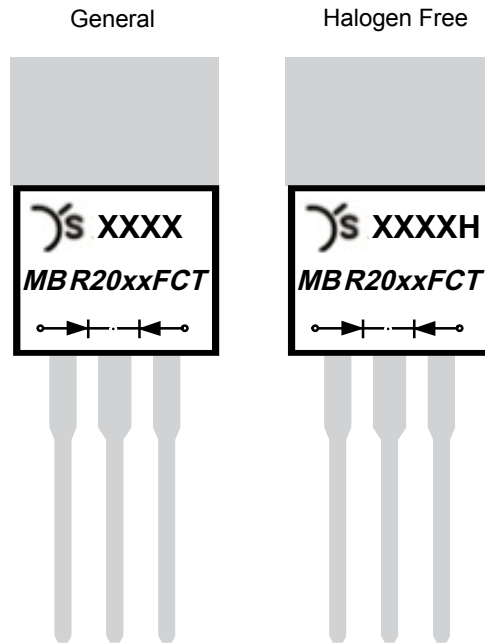


**Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT**




## Marking Information

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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