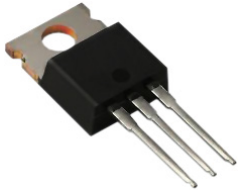


# Schottky Barrier Rectifier

**multicomp** PRO



## Features:

- Schottky barrier chip
- Guard ring for over voltage protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0

## Mechanical Data:

Case	: TO-220AB molded plastic
Polarity	: As marked on the body
Weight	: 0.08 ounces, 2.24 grams
Mounting Position	: Any
Reverse Voltage	: 40 to 100 Volts
Forward Current	: 20 Amperes

## Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	MBR2040CT	MBR2050CT	MBR2060CT	MBR20100CT	Unit
Max. Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	50	60	100	V
Max. RMS Voltage	V <sub>RMS</sub>	28	35	42	70	
Max. DC Blocking Voltage	V <sub>DC</sub>	40	50	60	100	
Max. Average Forward Rectified Current	I <sub>(AV)</sub>	20				A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150				
Peak Forward Voltage (Note1) I <sub>F</sub> =10A @T <sub>J</sub> =25°C I <sub>F</sub> =10A @T <sub>J</sub> =125°C I <sub>F</sub> =20A @T <sub>J</sub> =25°C I <sub>F</sub> =20A @T <sub>J</sub> =125°C	V <sub>F</sub>	0.57 0.84 0.72	0.8 0.7 0.95 0.85	0.85 0.75 0.95 0.85	V	
Max. DC Reverse Current T <sub>J</sub> =25°C Rated DC Blocking Voltage T <sub>J</sub> =125°C	I <sub>R</sub>	0.1 15	0.1 10	0.1 7.5	mA	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	400	320			pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	1.5			3.5	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175				°C

## Notes:

1. 300µs pulse width, 2% duty cycle.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to case.
4. The typical data above is for reference only

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## Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

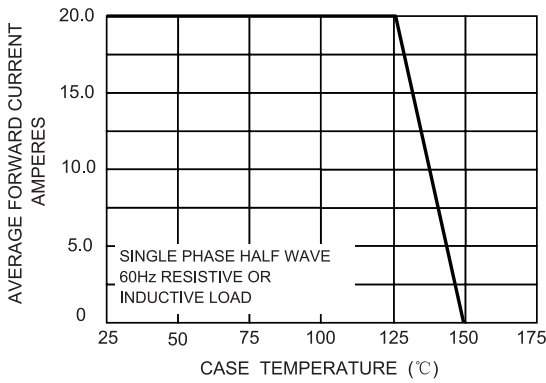


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

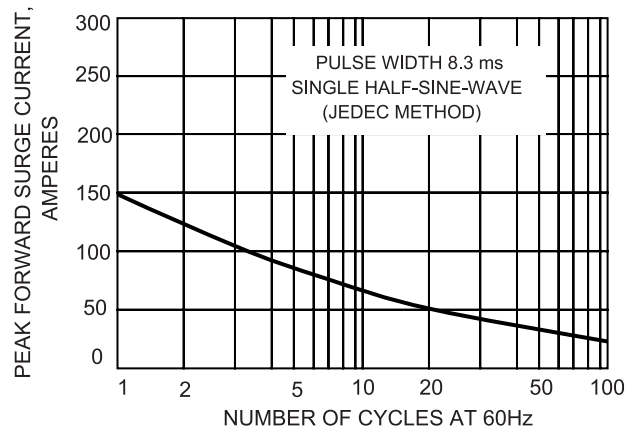


FIG.3-TYPICAL REVERES CHARACTERISTICS

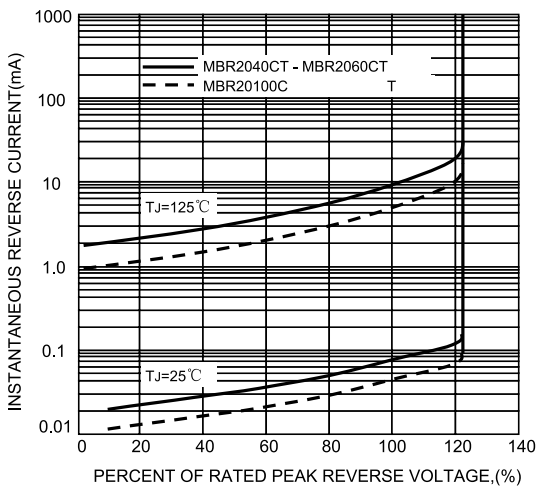


FIG.4-TYPICAL FORWARD CHARACTERISTICS

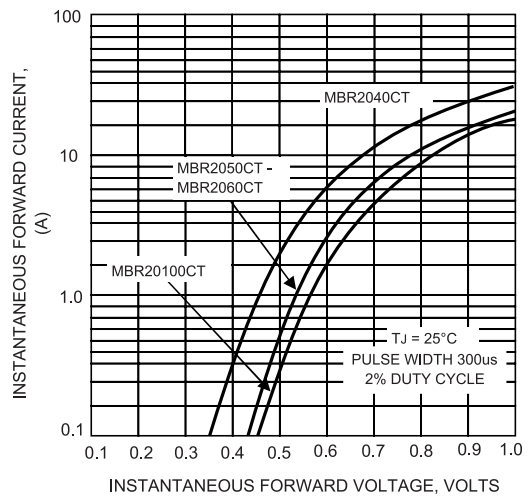
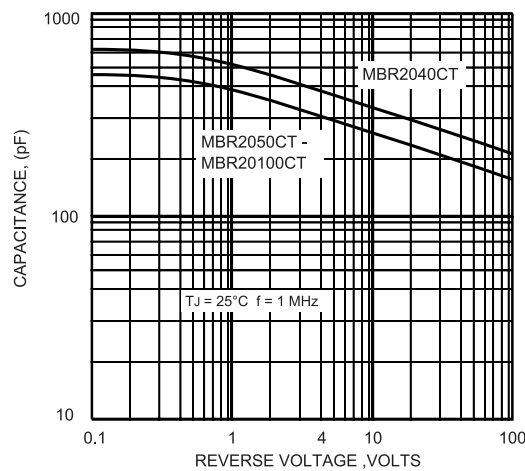


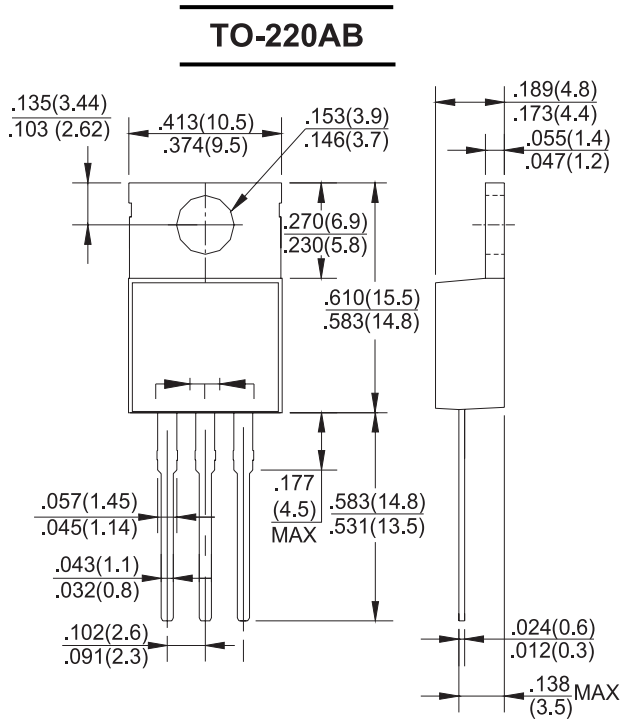
FIG.5 – TYPICAL JUNCTION CAPACITANCE



# Schottky Barrier Rectifier



## Dimensions:



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR2040CT
	MBR2050CT
	MBR2060CT
	MBR20100CT

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