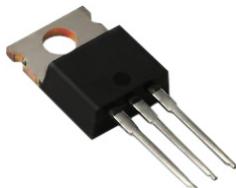


# Schottky Barrier Rectifier

**multicomp**



## Features:

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

## Mechanical Data:

Case	: TO-220AB Type, molded plastic
Terminals	: Pure tin plated, lead free solderable per MIL-STD-750, method 2026
Polarity	: As marked on the body
Weight	: 0.08 ounces, 2.24 grams
Mounting Position	: Any
Reverse Voltage	: 45 Volts
Forward Current	: 30 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	Values	Unit
Max. Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Max. RMS Voltage	V <sub>RMS</sub>	31.5	
Max. DC Blocking Voltage	V <sub>DC</sub>	45	
Max. Average Forward	I <sub>F(AV)</sub>	30	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	200	
Max. Forward Voltage at 15A per leg	V <sub>F</sub>	0.7	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 20	mA
Typical Thermal Resistance, Junction to Case	R <sub>θJC</sub>	1.5	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

## Notes:

1. Mounted on 14mm × 14mm pad areas, 1oz. FR4 P.C.B.
2. Free air, mounted on recommended copper pad area.
3. Pulse test: 300us pulse width, 1% duty cycle.
4. Pulse test: Pulse width  $\leq$  40ms
5. The typical data above is for reference only

## Ratings and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

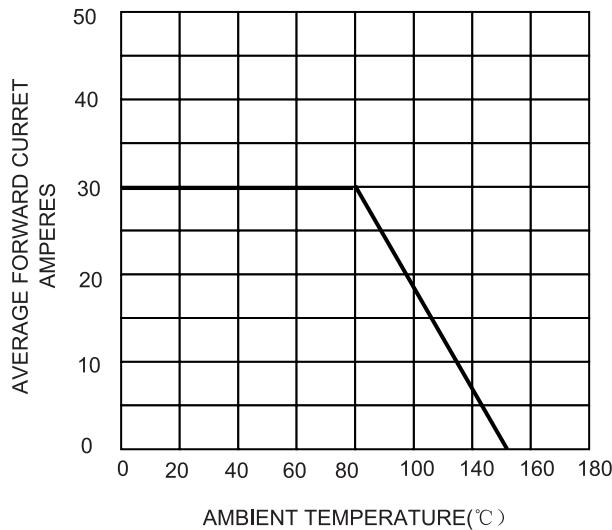


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

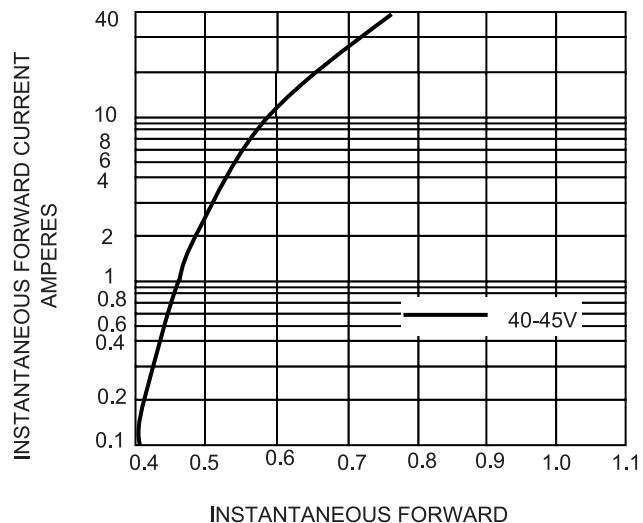


FIG.3-TYPICAL REVERSE CHARACTERISTICS

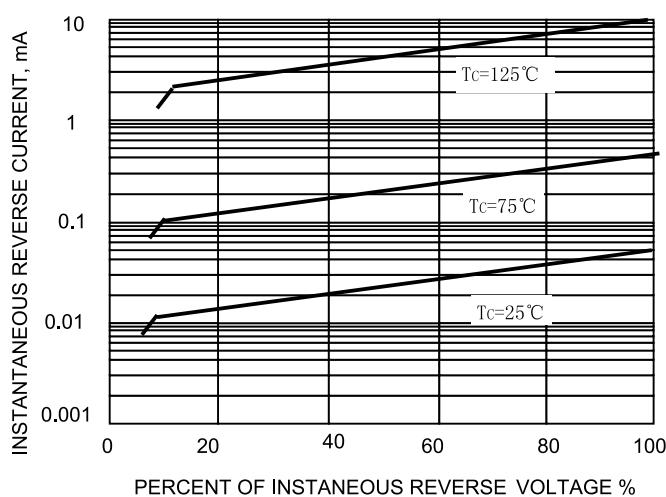
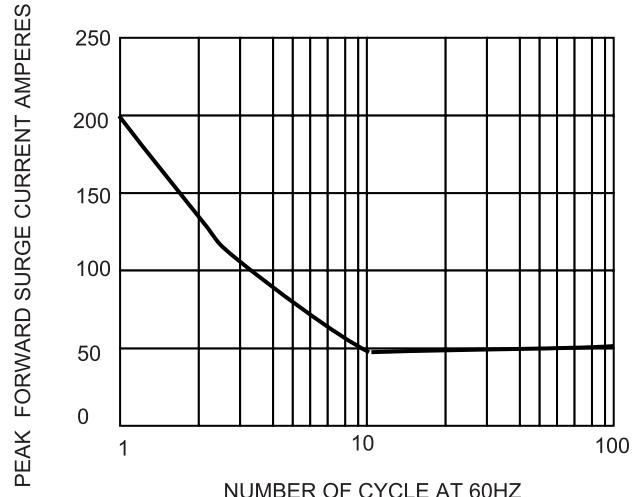


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

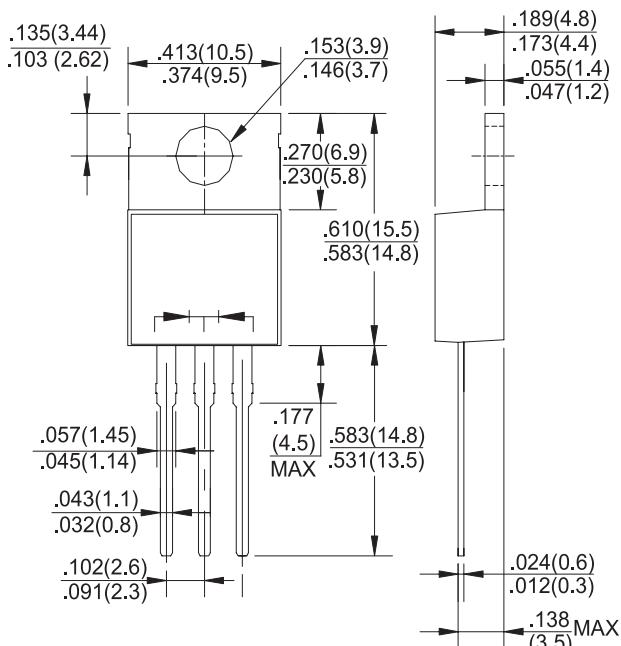


# Schottky Barrier Rectifier

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## Dimensions:

**TO-220AB**



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR3045CT+

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