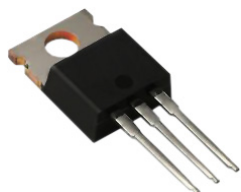


Schottky Barrier Rectifier



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_{RRM}	45	V
Max. RMS Voltage	V_{RMS}	31.5	
Max. DC Blocking Voltage	V_{DC}	45	
Max. Average Forward	$I_{F(AV)}$	30	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	200	
Max. Forward Voltage at 15A per leg	V_F	0.7	
Max. DC Reverse Current $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_J = 125^\circ\text{C}$	I_R	0.1 20	mA
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.5	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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 $\leq 40\text{ms}$
5. The typical data above is for reference only

Schottky Barrier Rectifier

Ratings and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

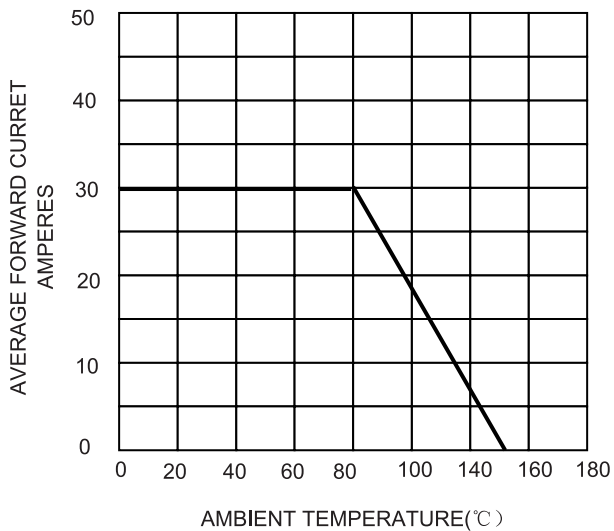


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

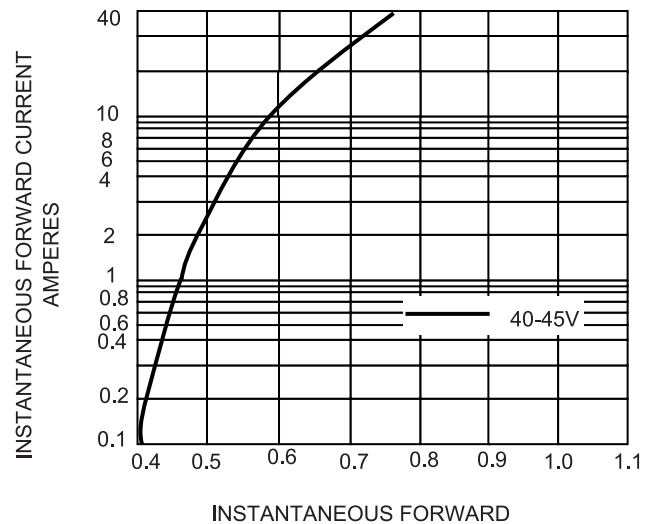


FIG.3-TYPICAL REVERSE CHARACTERISTICS

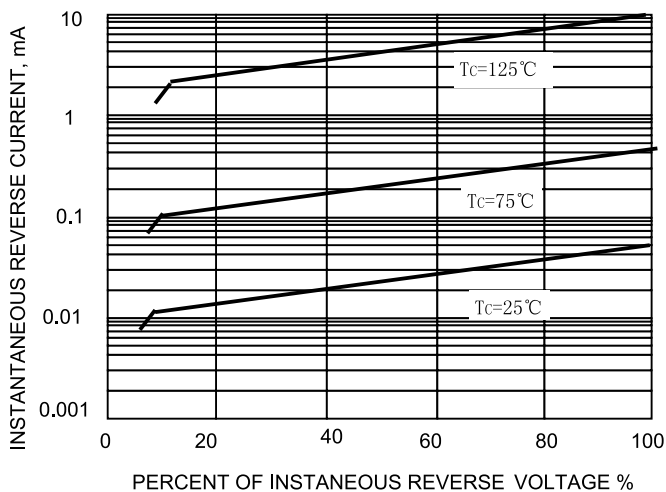
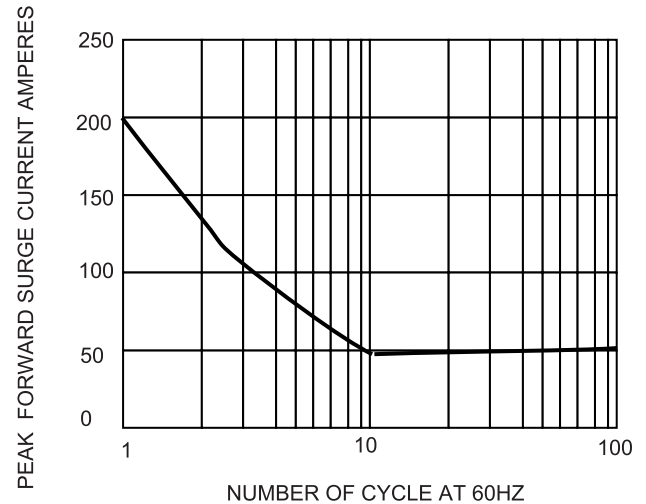


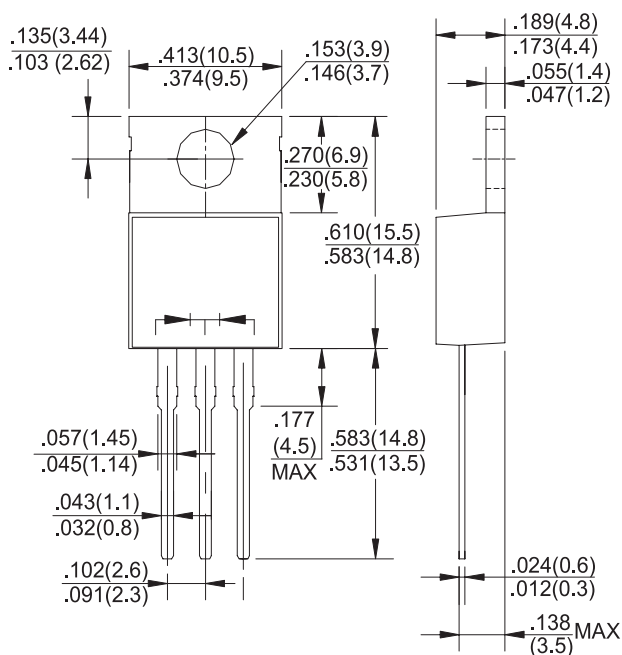
FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT



Schottky Barrier Rectifier

Dimensions:

TO-220AB



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR3045CT+

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