

Schottky Barrier Rectifier



Features:

- Fred chip construction
- Ultra-fast switching, high efficiency
- Low forward voltage drop
- High surge current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data:

Case	: TO-220AC Type, molded plastic
Terminals	: Pure tin plated, lead free solderable Per MIL-STD-202, method 208
Polarity	: As marked on the body
Weight	: 1.9 grams (approx.)
Mounting Position	: Any
Reverse Voltage	: 200 Volts
Forward Current	: 15 Amperes

Typical Applications

For use in high frequency rectifier of switching mode power supplies, Freewheeling Diode, DC/DC converters or polarity protection application

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}	200	V
Max. RMS Voltage	V_{RMS}	140	
Max. DC Blocking Voltage	V_{DC}	200	
Max. Average Forward Rectified Current	$I_{F(AV)}$	15	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	1	V
Max. Reverse Recovery Time (Note1)	T_{RR}	35	nS
Max. DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	I_R	10 250	μA
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	70	$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	3	
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes:

1. Measured With $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. The typical data above is for reference only

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Ratings and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING

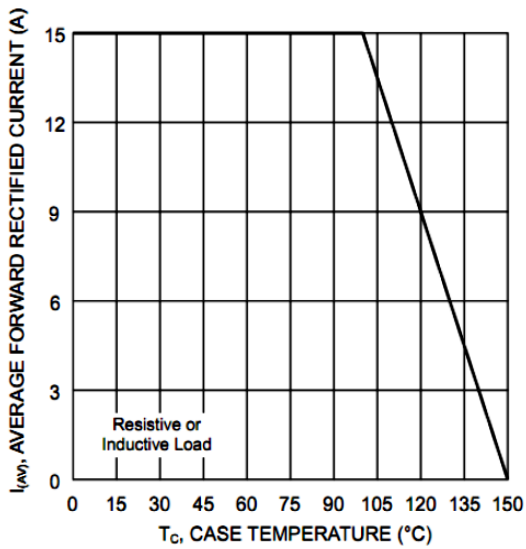


FIG.2-TYPICAL FORWARD CHARACTERISTICS

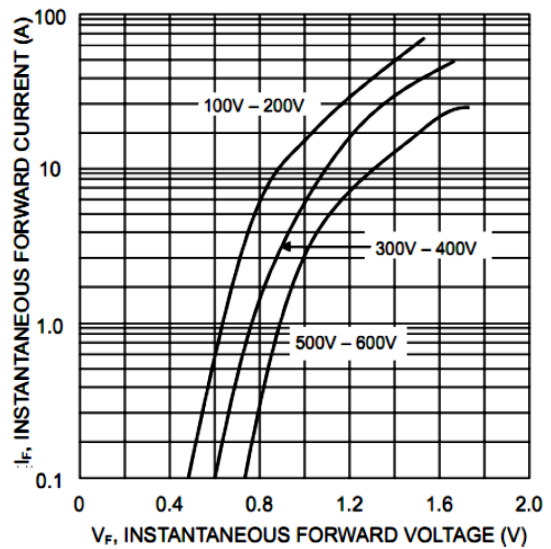


FIG.3-MAXIMUM NON-REPETITIVE PEAK FWD SURGE CURRENT

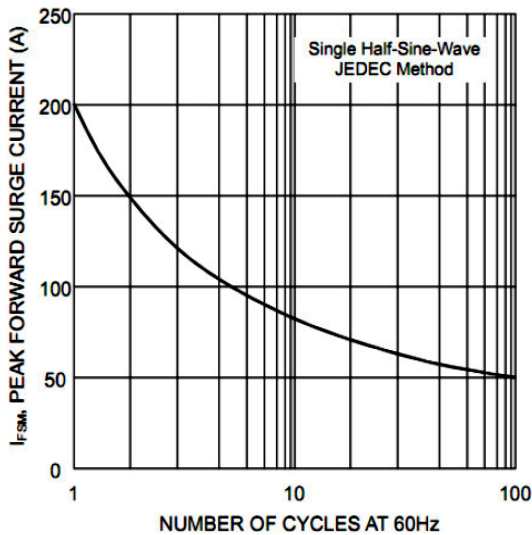
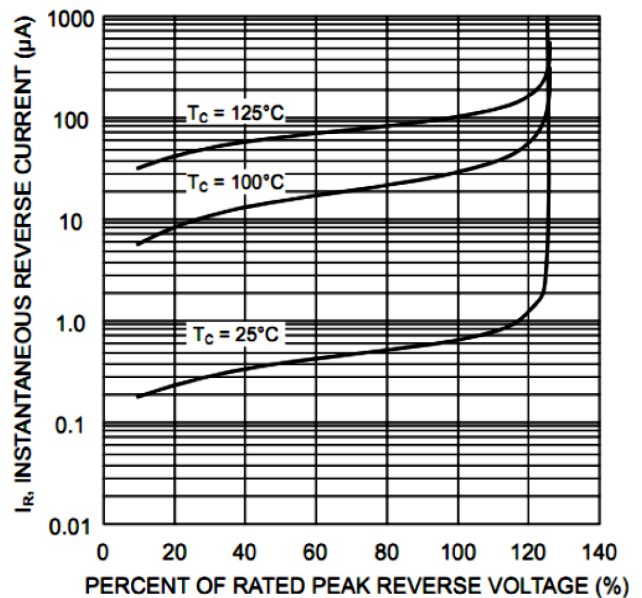


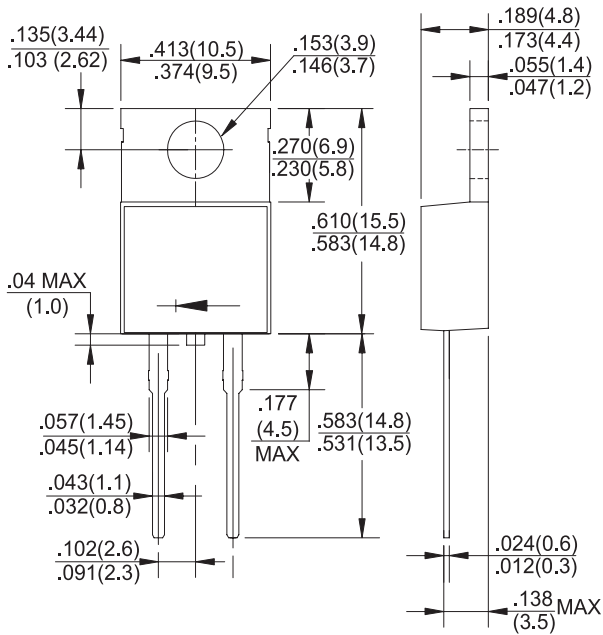
FIG.4-TYPICAL REVERSE CHARACTERISTICS



Schottky Barrier Rectifier

Dimensions:

TO-220AC



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Barrier Rectifier	MUR1520

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