

Schottky Barrier Rectifier



Features:

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications

Mechanical Data:

Case	: TO-220AC molded plastic
Polarity	: As marked on the body
Weight	: 0.08 ounces, 2.24 grams
Mounting Position	: Any
Reverse Voltage	: 100 Volts
Forward Current	: 16 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	Value	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Max. RMS Voltage	V_{RMS}	70	
Max. DC Blocking Voltage	V_{DC}	100	
Max. Average Forward Rectified Current	$I_{(AV)}$	16	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	150	
Peak Forward Voltage (Note 1) $I_F = 16A @ T_J = 25^\circ C$ $I_F = 16A @ T_J = 25^\circ C$	V_F	0.85 0.75	V
Max. DC Reverse Current at Rated DC Blocking Voltage at $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	0.3 7.5	mA
Typical Junction Capacitance (Note 2)	C_J	500	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°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

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

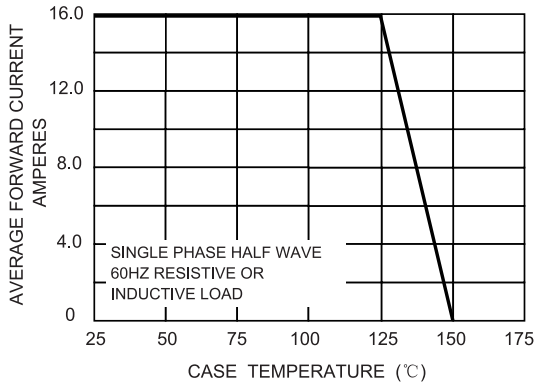


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

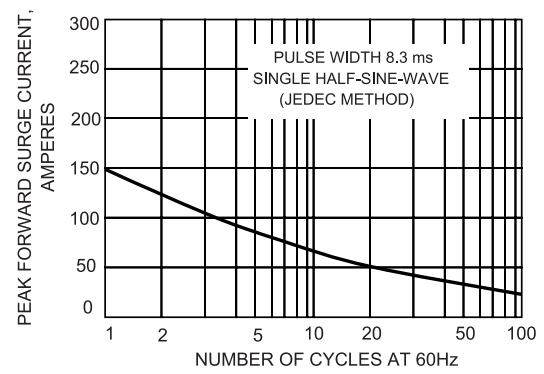


FIG.3-TYPICAL REVERSE CHARACTERISTICS

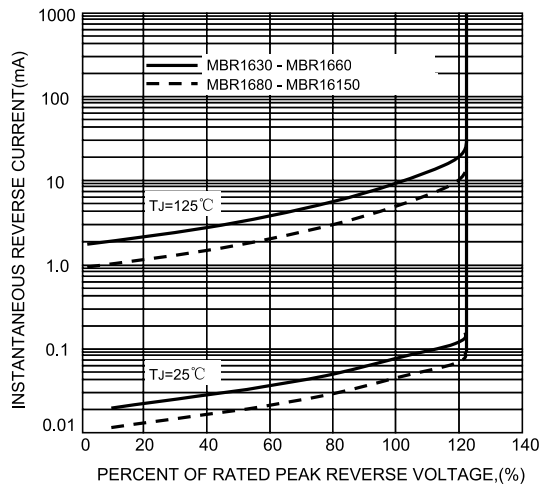


FIG.4-TYPICAL FORWARD CHARACTERISTICS

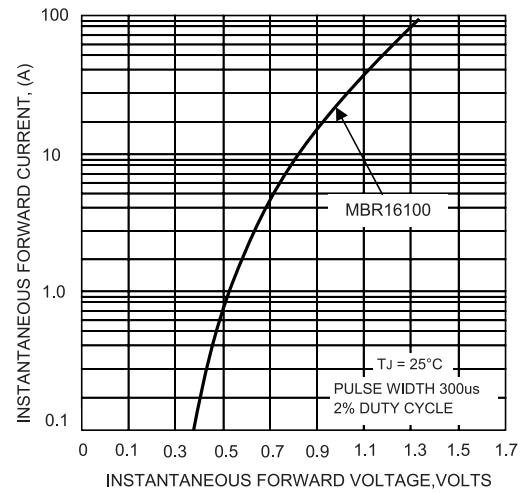


FIG.5 – TYPICAL JUNCTION CAPACITANCE

