

Surface Mount Schottky Barrier Rectifier



Features:

- For surface mounted applications
- Metal-Semiconductor junction with guarding
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Mechanical Data:

Case	: Molded Plastic
Polarity	: Colour band denotes cathode
Weight	: 0.007 ounces, 0.64 grams
Reverse Voltage	: 40 Volts
Forward Current	: 3 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}	40	V
Max. RMS Voltage	V_{RMS}	28	
Max. DC Blocking Voltage	V_{DC}	40	
Max. Average Forward Rectified Current $T_L = 100^\circ\text{C}$	$I_{(AV)}$	3	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80	
Peak Forward Voltage at 3A DC	V_F	0.55	V
Max. DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	I_R	1 20	mA
Typical Junction Capacitance (Note 1)	C_J	250	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	10	$^\circ\text{C/W}$
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50	
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}		

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V DC.
2. Thermal resistance junction to lead.
3. Thermal resistance junction to ambient.
4. The typical data above is for reference only

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Ratings and Characteristic Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

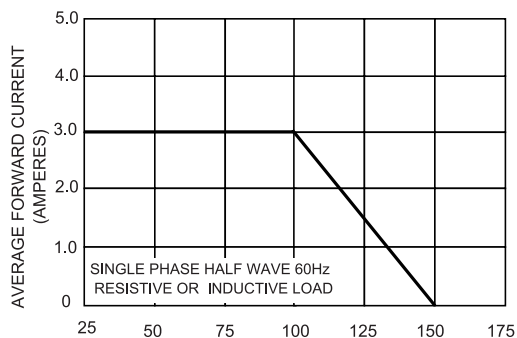
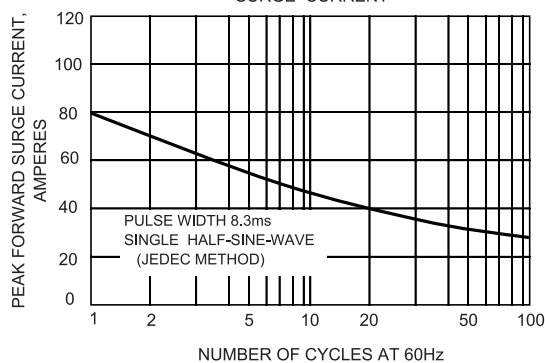


FIG.2 - MAXIMUM NON-REPETITIVE
SURGE CURRENT



LEAD TEMPERATURE °C
FIG.3-TYPICAL FORWARD CHARACTERISTICS

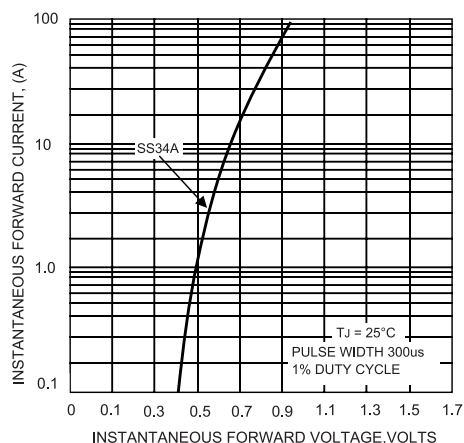


FIG.4-TYPICAL JUNCTION CAPACITANCE

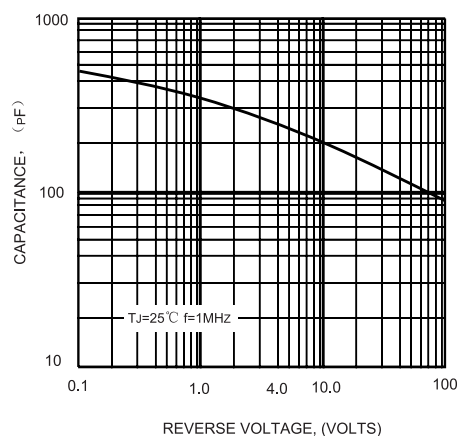
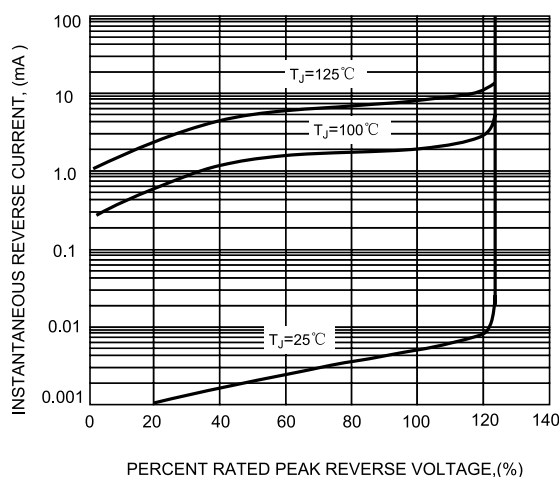


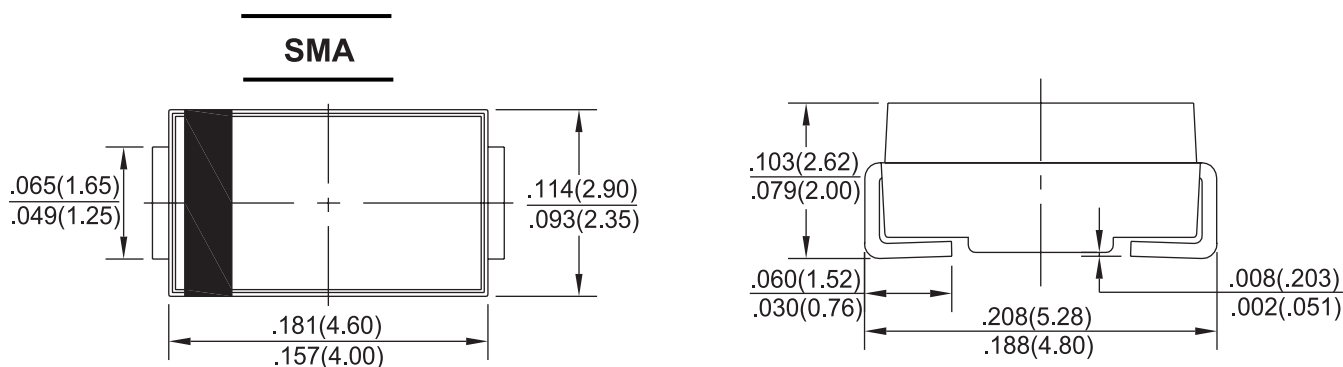
FIG.5-TYPICAL REVERSE CHARACTERISTICS



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Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Diode, 3A 40V SMA	SS34A

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