

Schottky Barrier Rectifiers

Reverse Voltage - 40 Volts
Forward Current - 1.0 Amperes

Features

- Low profile package.
- Ideal for automated placement.
- Guard Ring for over voltage protection.
- Low forward voltage drop.
- Comply with AEC-Q101.

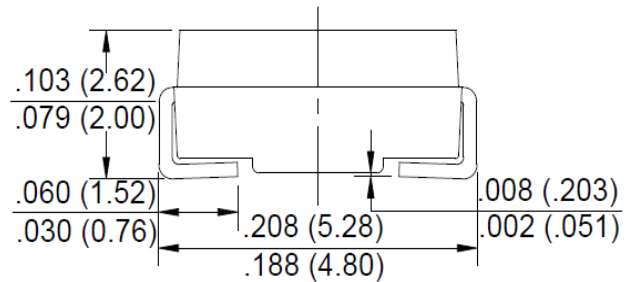
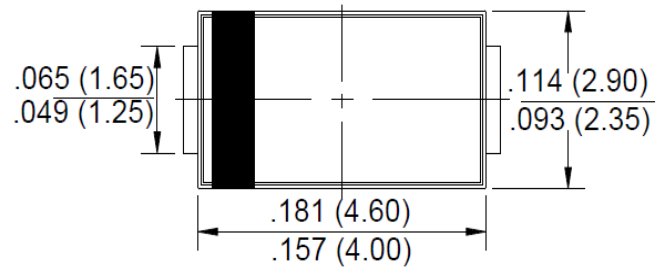
Mechanical Data

- Case: SMA, molded plastic.
- Epoxy: UL flammability classification rate 94V-0 .
- Terminals: Lead free plating (Tin finish).
per MIL-STD-202, method 208.
- Polarity: Indicated by cathode band.
- Weight: 0.062 grams(approx.).

Circuit diagram



SMA



Package Outline Dimensions in Inches (Millimeters)

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	SS14	Unit
	Marking	140	
Repetitive peak reverse voltage	V _{RRM}	40	V
RMS voltage	V _{RMS}	28	V
DC blocking voltage	V _{DC}	40	V
Average forward rectified current	I _F	1	A
Peak forward surge current (8.3ms single half sine-wave superimposed on rated load)	I _{FSM}	30	A
Instantaneous forward voltage, I _F = 1A, T _A =25°C	V _F	0.5 MAX.	V
Reverse current V _R = V _{RRM} , T _A =25°C	I _R	0.5 MAX.	μA
V _R = V _{RRM} , T _A =100°C		15 MAX.	
Junction capacitance, f=1MHZ and applied 4V DC reverse Voltage(Note 1)	C _J	65 TYP.	pF
Thermal Resistance Junction to case	R _{θJC}	40 TYP.	°C/W
Operating temperature range	T _J	-55 to + 125	°C
Storage temperature range	T _{STG}	-55 to + 150	°C

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

Fig.1 - Typical Forward Current Derating Curve

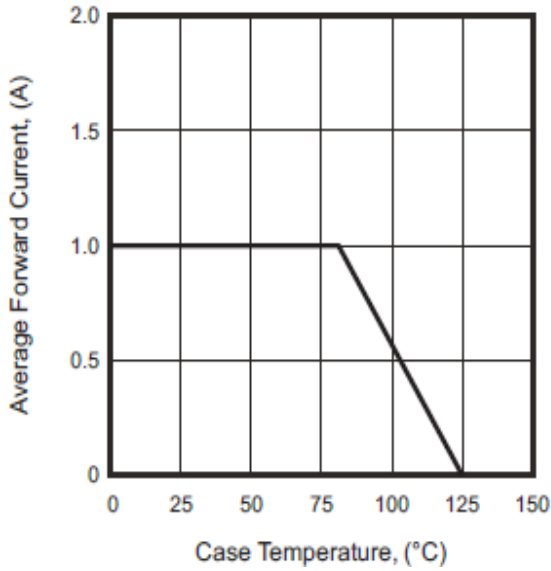


Fig.2 - Typical Forward Characteristics

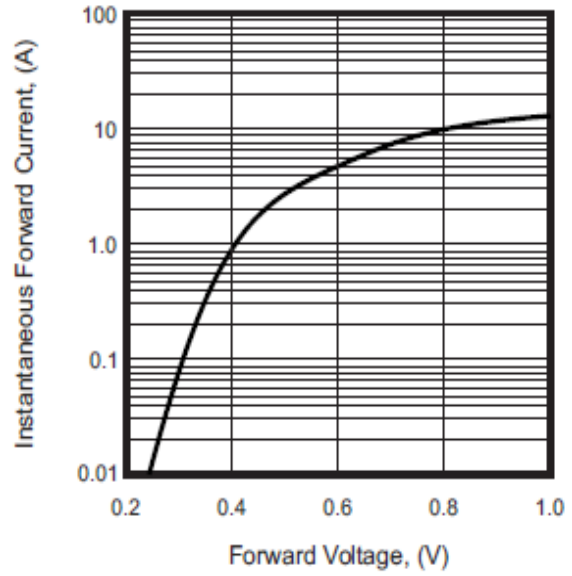


Fig.3 - Maximum Non-repetitive Forward Surge Current

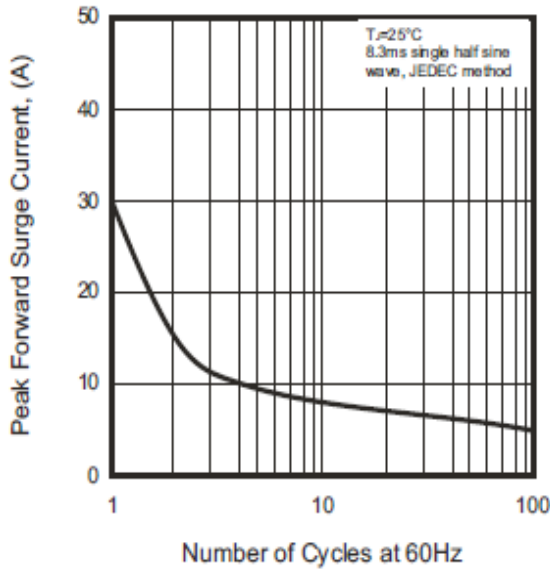


Fig.4 - Typical Reverse Characteristics

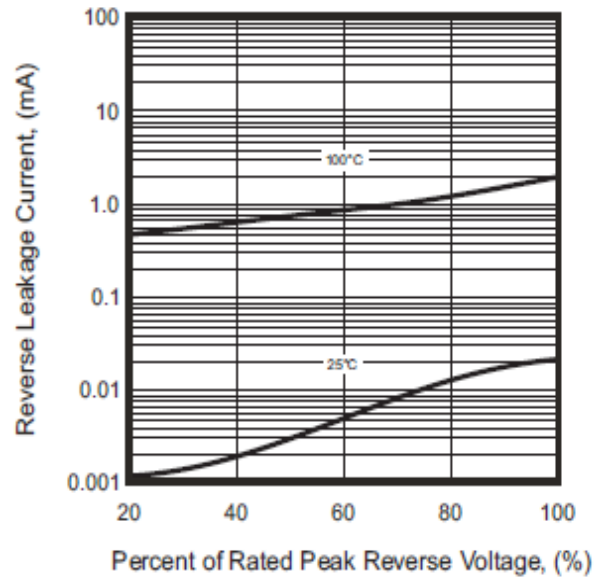
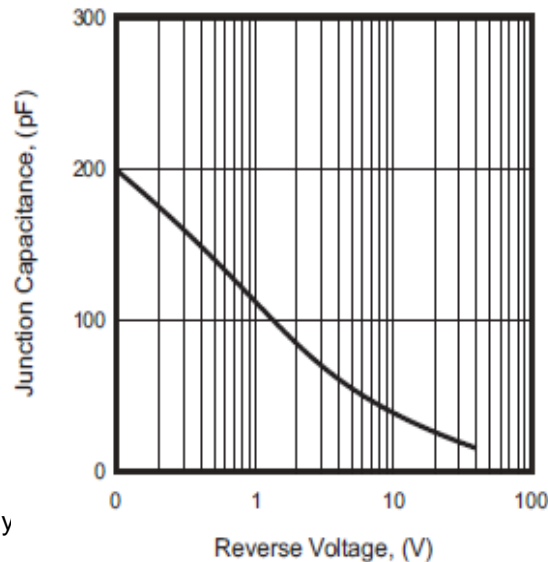


Fig.5 - Typical Junction Capacitance



The curve above is for reference only

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