



New Product

SS1H9 and SS1H10

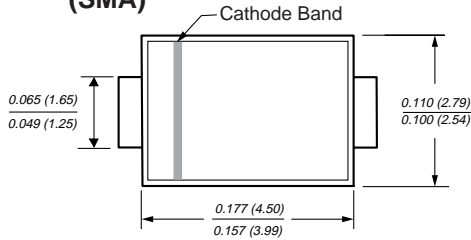
Vishay Semiconductors
formerly General Semiconductor



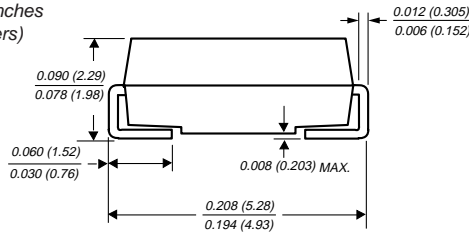
High Voltage Surface Mount Schottky Rectifier

DO-214AC
(SMA)

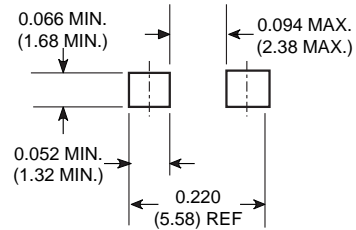
Reverse Voltage 90 to 100V
Forward Current 1.0A



Dimensions in inches and (millimeters)



Mounting Pad Layout



Mechanical Data

Case: JEDEC DO-214AC molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed: 250°C/10 seconds at terminals

Polarity: Color band denotes cathode end

Weight: 0.002oz., 0.064g

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SS1H9	SS1H10	Unit
Device marking code		S9	S10	
Maximum repetitive peak reverse voltage	V _{RRM}	90	100	V
Maximum RMS voltage	V _{RMS}	63	70	V
Maximum DC blocking voltage	V _{DC}	90	100	V
Maximum average forward rectified current (see Fig. 1)	I _{F(AV)}	1.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50		A
Peak repetitive reverse surge current at t _p = 2.0μs, 1KHz	I _{RRM}	1.0		A
Maximum thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	88 30		°C/W
Storage temperature range	T _{STG}	-55 to +175		°C
Maximum operating temperature	T _J	175		°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Maximum instantaneous forward voltage at: ⁽¹⁾	I _F = 1.0A, T _J = 25°C I _F = 1.0A, T _J = 125°C I _F = 2.0A, T _J = 25°C I _F = 2.0A, T _J = 125°C	V _F	0.77 0.62 0.86 0.70	V
Maximum DC reverse current at rated DC blocking voltage ⁽¹⁾	T _J = 25°C T _J = 125°C	I _R	1.0 0.5	μA mA

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle

(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

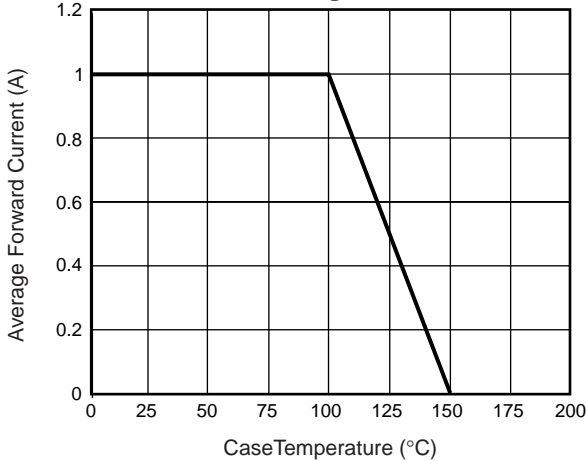


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

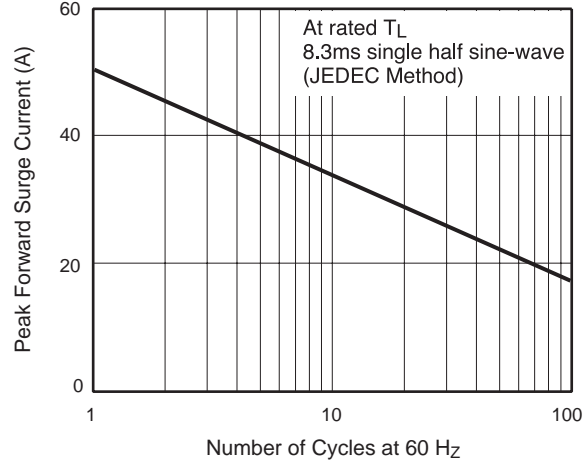


Fig. 3 – Typical Instantaneous Forward Characteristics

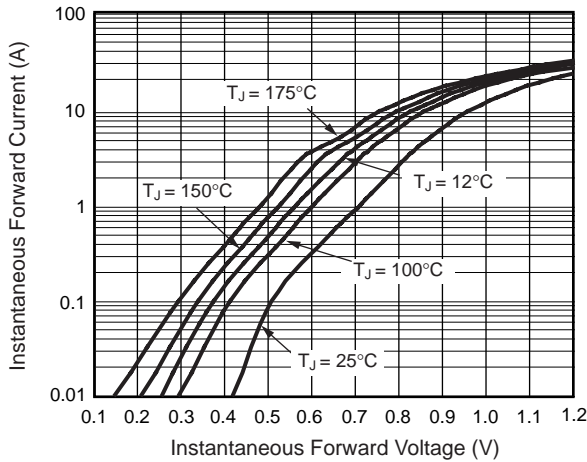


Fig. 4 – Typical Reverse Characteristics

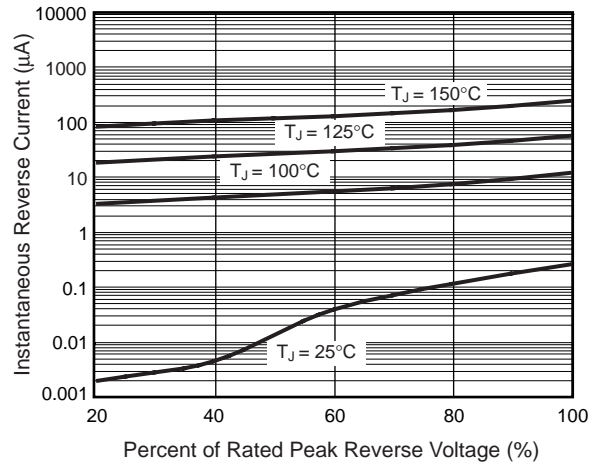


Fig. 5 – Typical Junction Capacitance

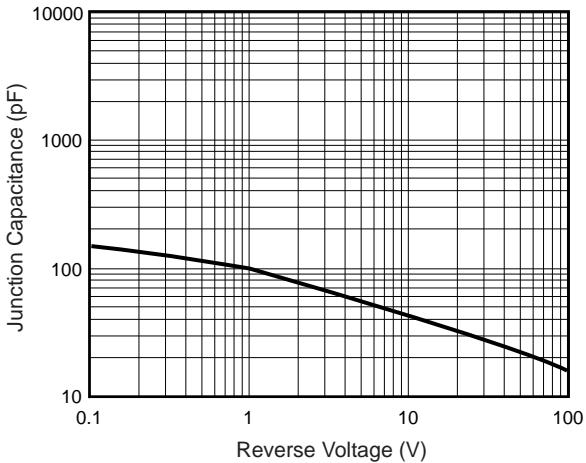


Fig. 6 – Typical Transient Thermal

