



New Product

# SS1H9 and SS1H10

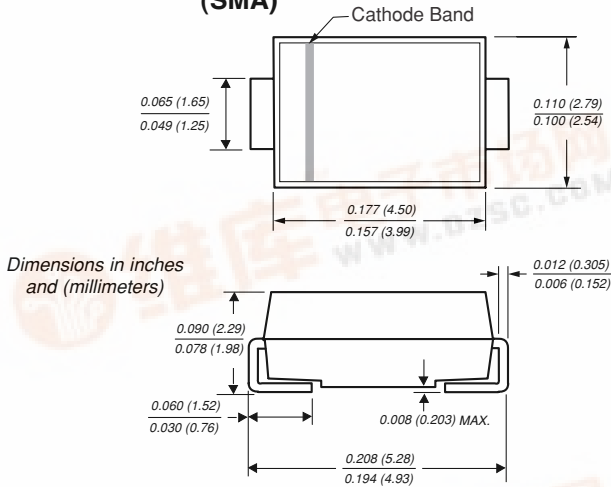
Vishay Semiconductors  
formerly General Semiconductor



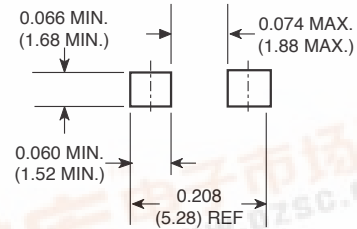
## High Voltage Surface Mount Schottky Rectifier

DO-214AC (SMA)

Reverse Voltage 90 to 100V  
Forward Current 1.0A



### 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<sub>A</sub> = 25°C unless otherwise noted)

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

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Maximum instantaneous forward voltage at: <sup>(1)</sup>	I <sub>F</sub> = 1.0A, T <sub>J</sub> = 25°C I <sub>F</sub> = 1.0A, T <sub>J</sub> = 125°C I <sub>F</sub> = 2.0A, T <sub>J</sub> = 25°C I <sub>F</sub> = 2.0A, T <sub>J</sub> = 125°C	V <sub>F</sub>	0.77 0.62 0.86 0.70	V
Maximum DC reverse current at rated DC blocking voltage <sup>(1)</sup>	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>R</sub>	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

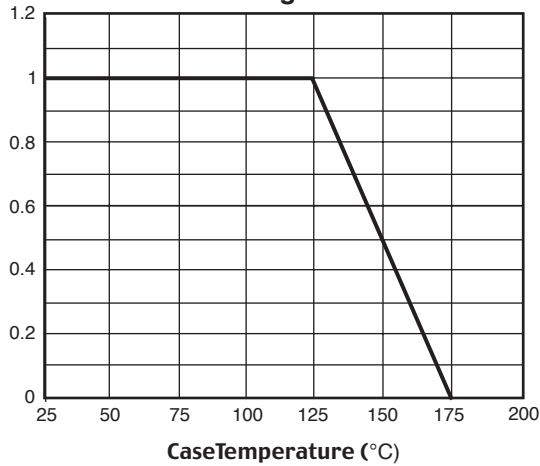
# SS1H9 and SS1H10



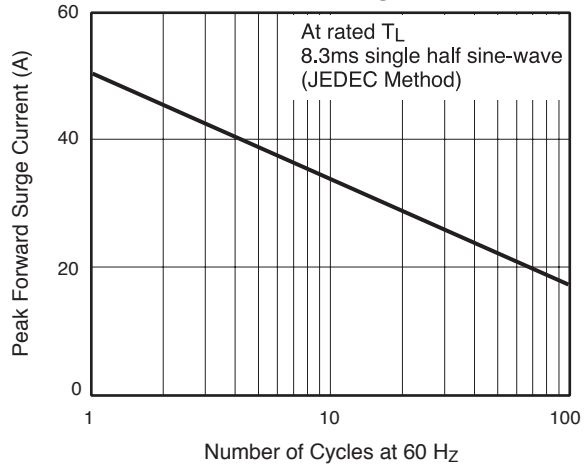
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## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

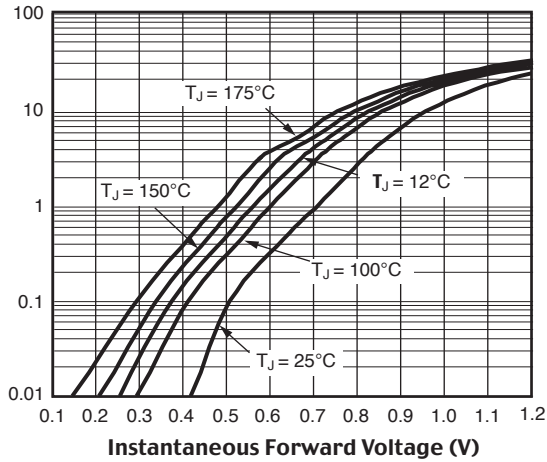
**Fig. 1 – Forward Current Derating Curve**



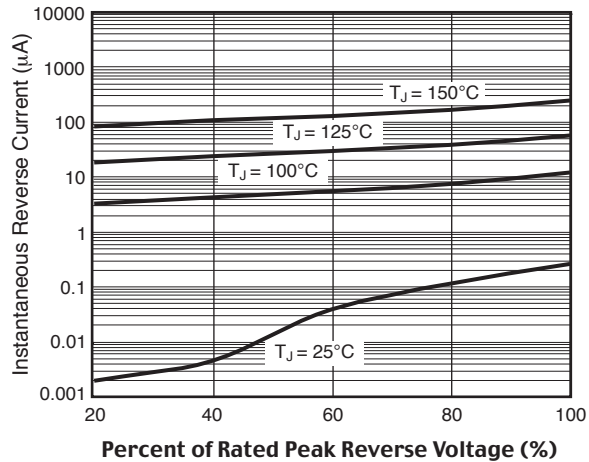
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



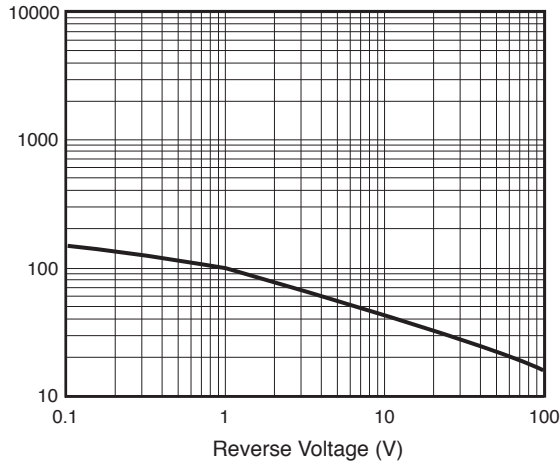
**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**



**Fig. 6 – Typical Transient Thermal**

