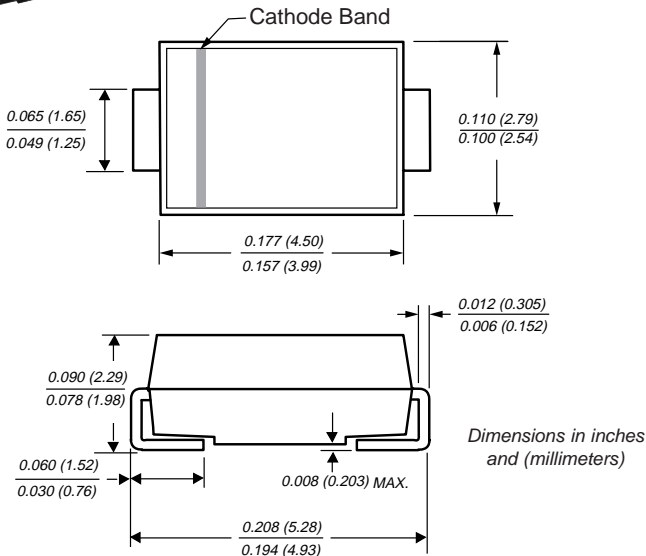




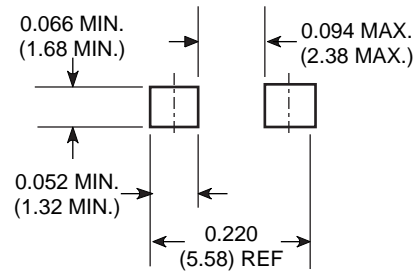
## Surface Mount Schottky Barrier Rectifier

Reverse Voltage 20 to 60V  
Forward Current 1.0A

DO-214AC (SMA)



### Mounting Pad Layout



### Mechanical Data

**Case:** JEDEC DO-214AC molded plastic body

**Terminals:** Solder plated, solderable per MIL-STD750, Method 2026

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

**Polarity:** Color band denotes cathode end

**Weight:** 0.002 ounce, 0.064 gram

### 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	SS12	SS13	SS14	SS15	SS16	Unit
Device marking code		S2	S3	S4	S5	S6	V
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum average forward rectified current at T <sub>L</sub> (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>	40					A
Typical thermal resistance <sup>(2)</sup>	R <sub>θJA</sub> R <sub>θJL</sub>	88 28					°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +125			-65 to +150		°C
Storage temperature range	T <sub>STG</sub>	-65 to +150					°C

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

Maximum instantaneous forward voltage at 1.0A <sup>(1)</sup>	V <sub>F</sub>	0.50		0.75		V
Maximum DC reverse current at rated DC blocking voltage <sup>(1)</sup>	I <sub>R</sub>	0.2				mA
		6.0		5.0		

**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

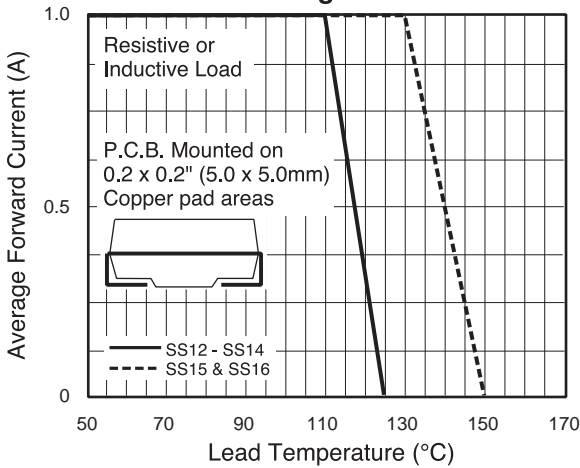
# SS12 thru SS16

Vishay Semiconductors  
formerly General Semiconductor

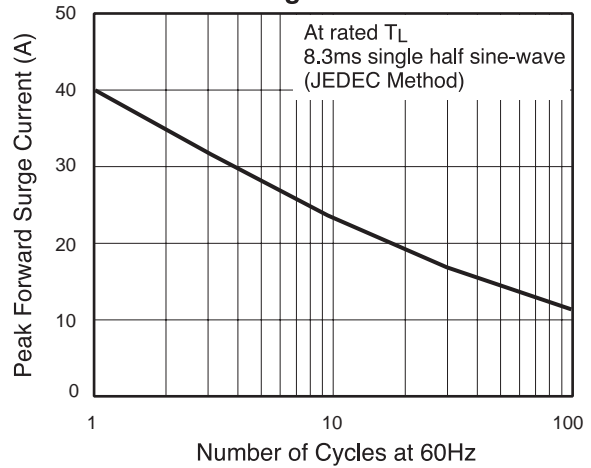


## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

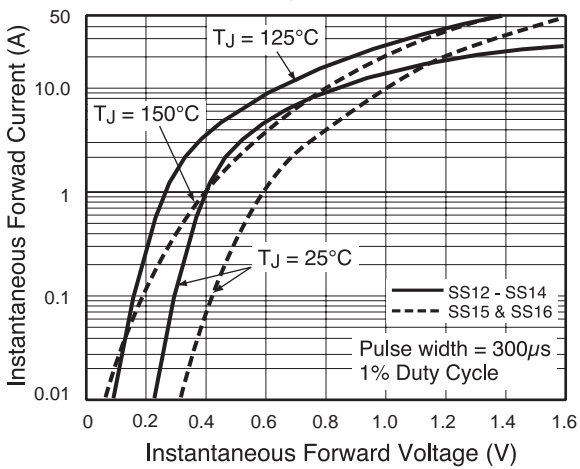
**Fig. 1 - Forward Current Derating Curve**



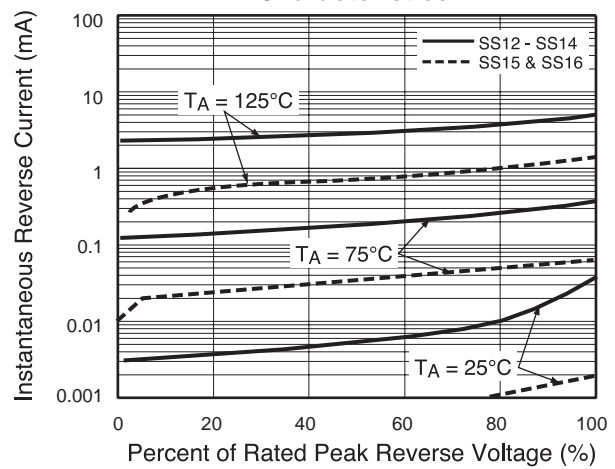
**Fig. 2 - Maximum Non-repetitive Surge Current**



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



**Fig. 4 - Typical Reverse Current Characteristics**



**Fig. 5 - Typical Junction Capacitance**

