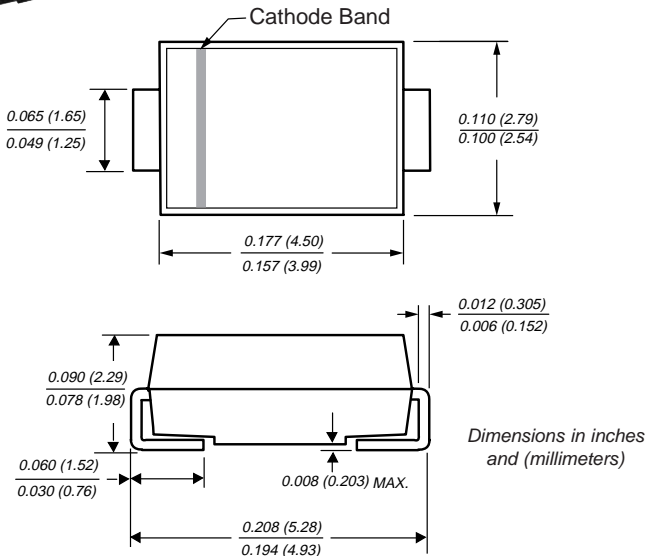




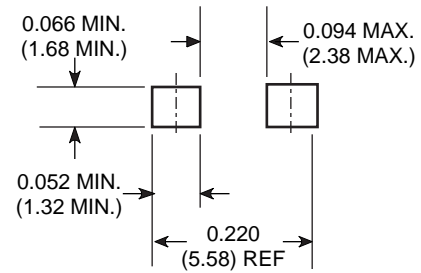
Surface Mount Schottky Barrier Rectifier

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_A = 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 _{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	V
Maximum average forward rectified current at T _L (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}	40					A
Typical thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	88 28					°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150		°C
Storage temperature range	T _{STG}	-65 to +150					°C

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

Parameter	Symbol	SS12	SS13	SS14	SS15	SS16	Unit
Maximum instantaneous forward voltage at 1.0A ⁽¹⁾	V _F	0.50			0.75		V
Maximum DC reverse current at rated DC blocking voltage ⁽¹⁾	I _R	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

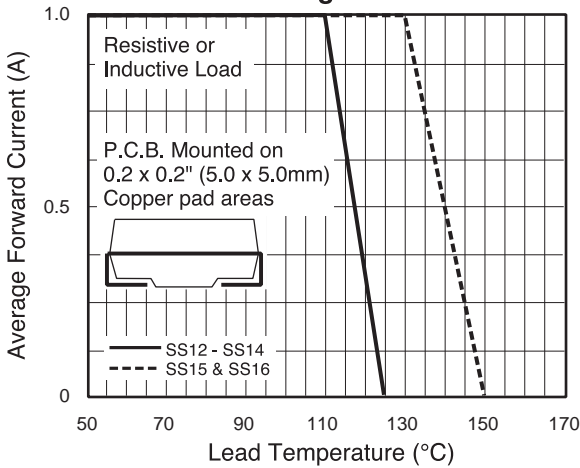


Fig. 2 - Maximum Non-repetitive Surge Current

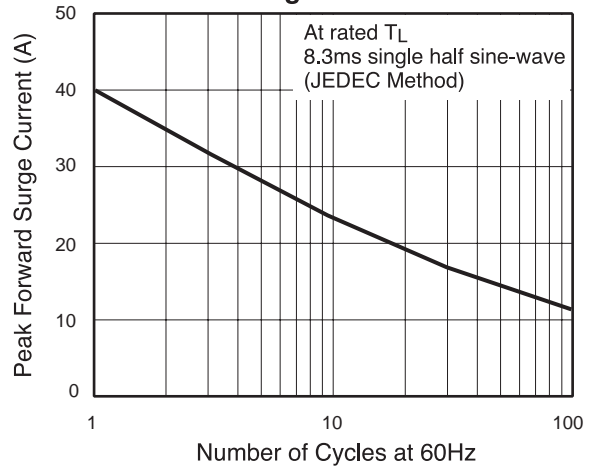


Fig. 3 - Typical Instantaneous Forward Characteristics

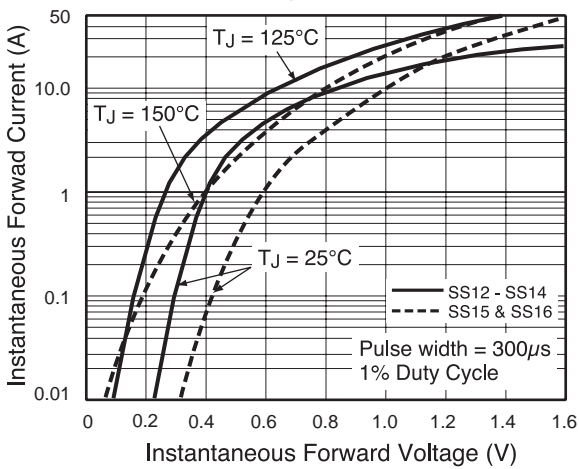


Fig. 4 - Typical Reverse Current Characteristics

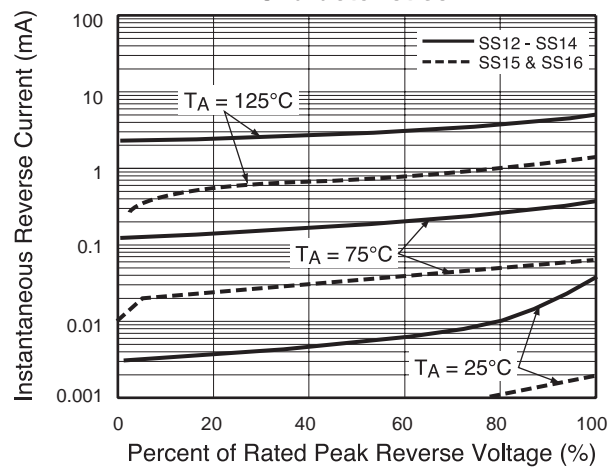


Fig. 5 - Typical Junction Capacitance

