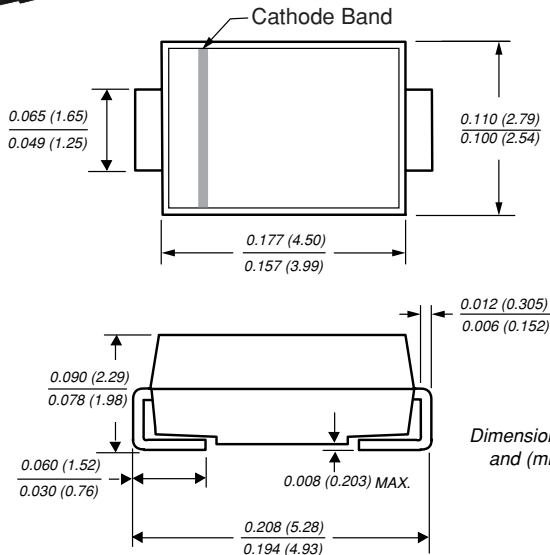


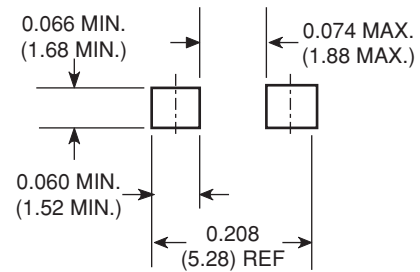


Surface Mount Schottky Barrier Rectifier

DO-214AC (SMA)

Reverse Voltage 20 to 60V
Forward Current 1.0ADimensions in inches
and (millimeters)

Mounting Pad Layout



Mechanical Data

Case: JEDEC DO-214AC molded plastic body**Terminals:** Solder plated, solderable per MIL-STD750, Method 2026High 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
Voltage rate of change (rated V _R)	dv/dt	10,000					°C
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)

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

Ratings and

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

Fig. 1 - Forward Current Derating Curve

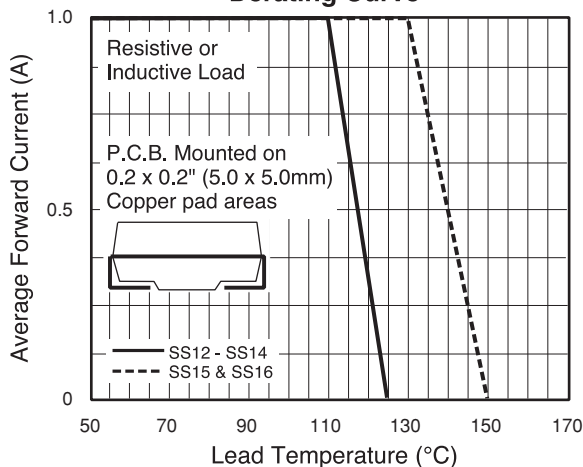


Fig. 2 - Maximum Non-repetitive Surge Current

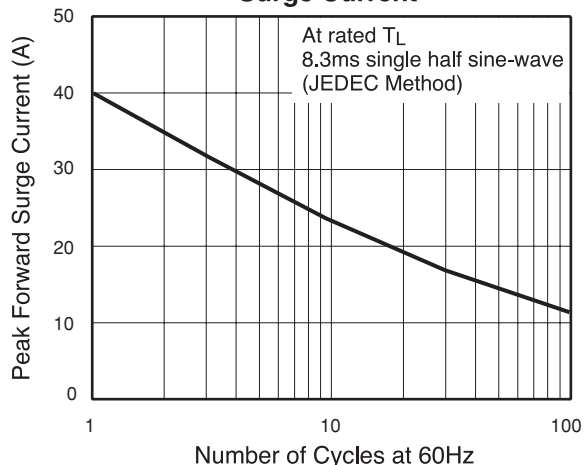


Fig. 3 - Typical Instantaneous Forward Characteristics

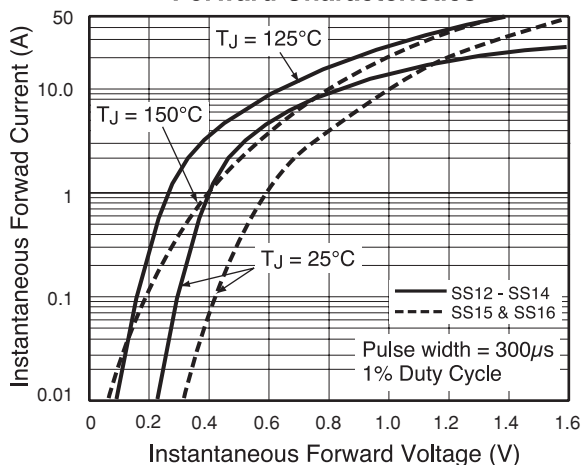


Fig. 4 - Typical Reverse Current Characteristics

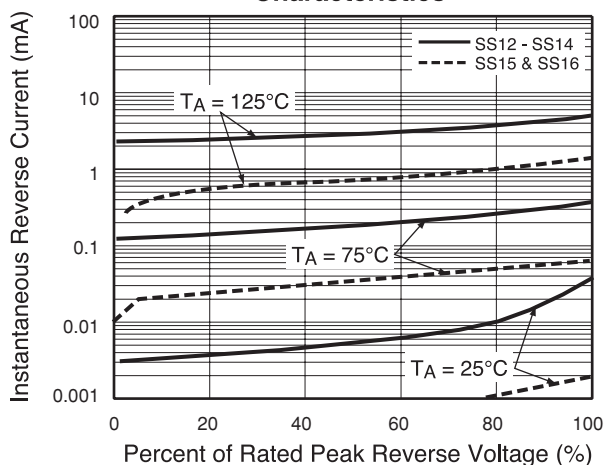


Fig. 5 - Typical Junction Capacitance

