

Power Diodes

Controlled Avalanche



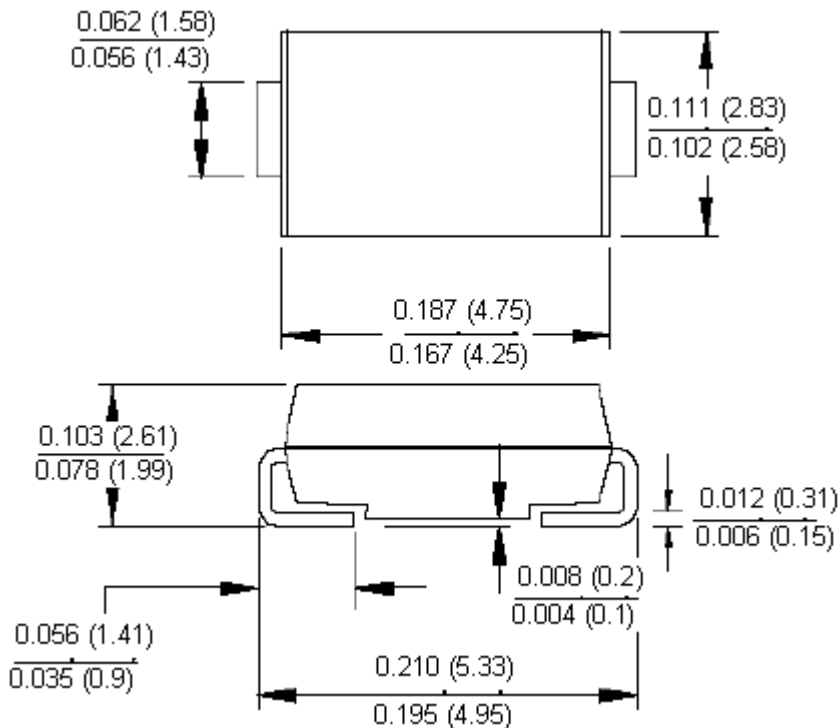
Features:

- For surface mounted application
- Metal to silicon rectifier, majority carrier conduction
- Low forward voltage drop
- Easy pick and place
- High surge current capability
- Epitaxial construction
- High temperature soldering : 250°C / 10 seconds at terminals

Mechanical Data

Cases	: Moulded plastic
Terminals	: Solder plated
Polarity	: Indicated by cathode band

SMA/DO-214AC



Dimensions : Inches (Millimetres)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SS14	SS16	SS110	Unit
Maximum Recurrent Peak Reverse Voltage	40	60	100	V
Maximum RMS Voltage	28	42	70	
Maximum DC Blocking Voltage	40	60	100	

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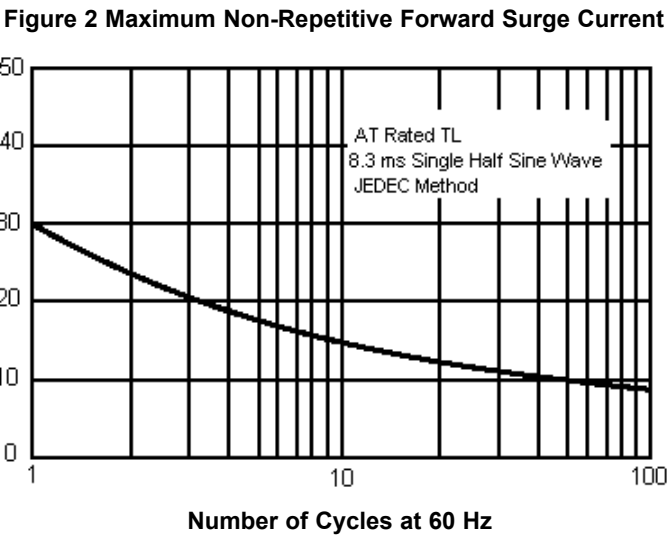
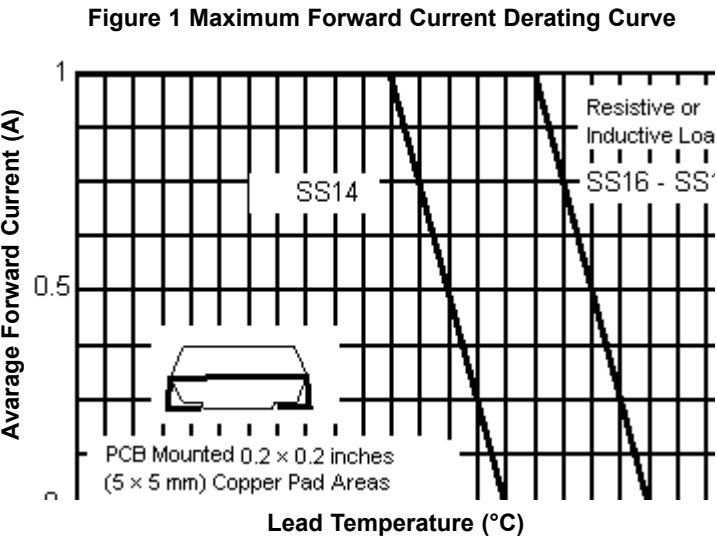


Type Number	SS14	SS16	SS110	Unit
Maximum average forward rectified current at T _L (See Figure 1)	1			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30			
Maximum Instantaneous forward voltage (Note) at 1 A	0.5	0.75	0.8	V
Maximum DC reverse current at TA = 25°C at rated DC blocking voltage at TA = 100°C	0.5		0.05	mA
	10	5	0.5	
Typical thermal resistance (Note 2) RθJL RθJA	28 88			°C / W
Operating temperature range T _J	-65 to +125	-65 to +150		°C
Storage temperature range T _{STG}	-65 to +150			

Notes:

- 1. Pulse test with $PW = 300 \mu$ seconds, 1% duty cycle
- 2. Measured on PC Board with 0.2×0.2 inches (5×5 mm) copper pad areas

Ratings and Characteristic Curves



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Rating and Characteristic Curves

Figure 3 Typical Forward Characteristics

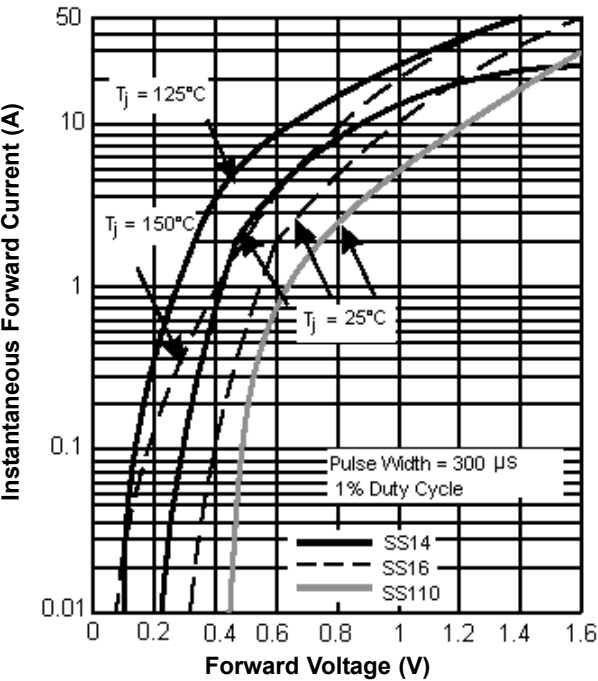


Figure 4 Typical Reverse Characteristics

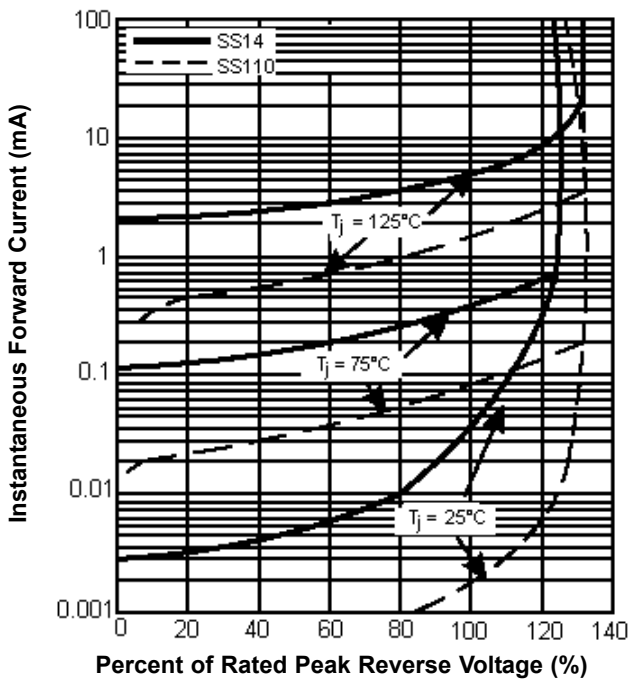
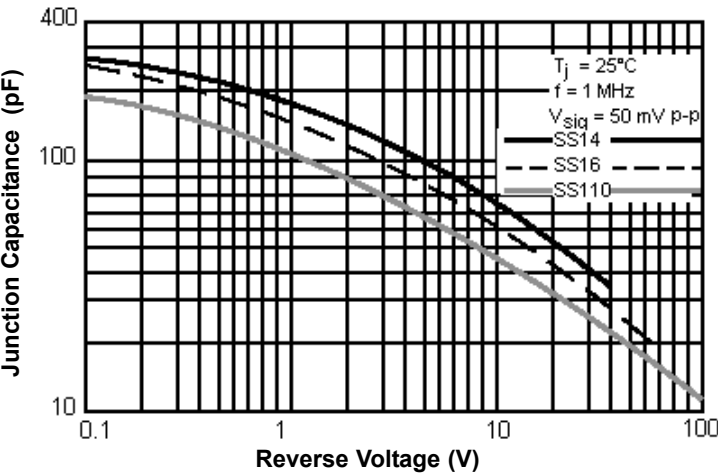


Figure 5 Typical Junction Capacitance



Specification Table

I_F (AV) (A)	T_C (°C)	V_{RRM} (V)	V_{FM} maximum (V)	I_{RM} maximum (mA)	Package	Part Number
1	105	40	0.5	0.5	DO-214AC (SMA)	SS14
		60	0.75			SS16
		100	0.8	0.05		SS110

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