# **Power Diodes**

# **Controlled Avalanche**





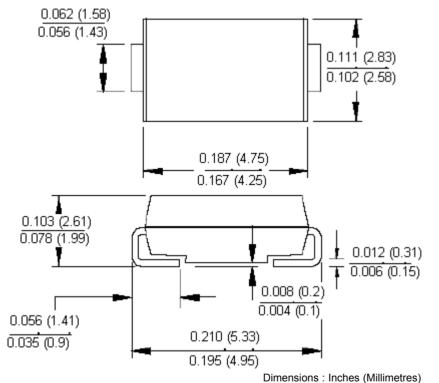
### Features:

- 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



#### **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	
Maximum RMS Voltage	28	42	70	V
Maximum DC Blocking Voltage	40	60	100	

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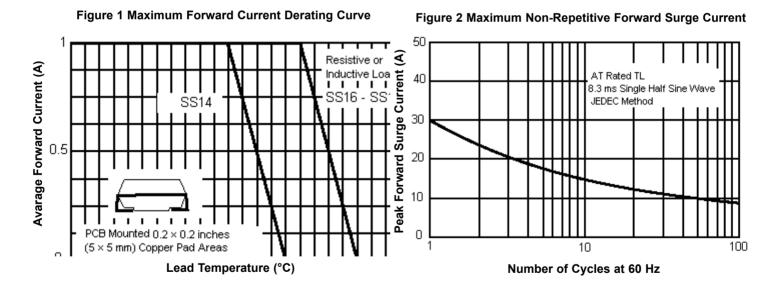
Type Number	SS14	SS16	SS110	Unit
Maximum average forward rectified current at $T_L$ (See Figure 1)	1		A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30			
Maximum Instantaneous forward voltage (Note) at 1 A	0.5	0.75	0.8	V
Maximum DC reverse current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

#### Notes:

1. Pulse test with PW = 300  $\mu$  seconds, 1% duty cycle

2. Measured on PC Board with 0.2  $\times$  0.2 inches (5  $\times$  5 mm) copper pad areas

## **Ratings and Characteristic Curves**



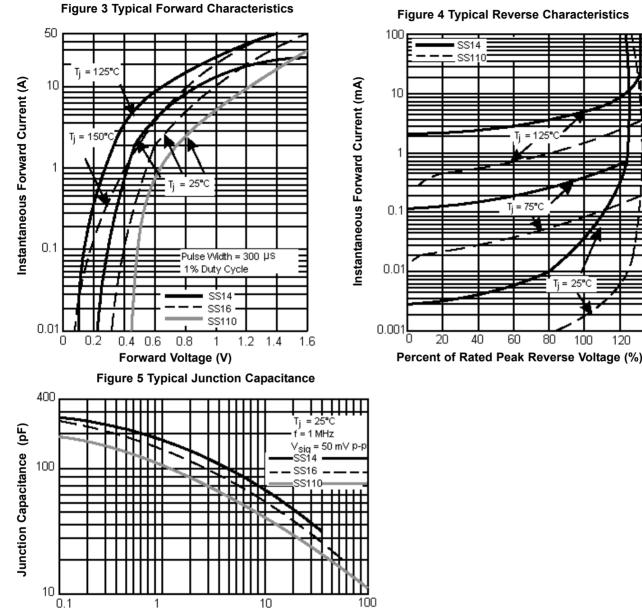




140

# **Controlled Avalanche**

### **Rating and Characteristic Curves**



Reverse Voltage (V)

## **Specification Table**

I <sub>F</sub> (AV) (A)	т <sub>с</sub> (°С)	V <sub>RRM</sub> (V)	V <sub>FM</sub> maximum (V)	I <sub>RM</sub> maximum (mA)	Package	Part Number
		40	0.5	0.5	DO-214AC (SMA)	SS14
1	105	60	0.75			SS16
		100	0.8	0.05		SS110

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