

## SS12 – S100

### Specifications

#### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Value								Unit
		SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
I <sub>F(AV)</sub>	Maximum Average Forward Current: 0.375-inch Lead Length at T <sub>A</sub> = 75°C	1.0								A
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current: 8.3 ms Single Half-Sine Wave	40								A
T <sub>J</sub>	Operating Junction Temperature	-65 to +125								°C
T <sub>STG</sub>	Storage Temperature Range	-65 to +150								°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

Symbol	Characteristic	Value	Unit
P <sub>D</sub>	Power Dissipation	1.1	W
R <sub>θJA</sub>	Thermal Resistance, Junction-to-Ambient (Note 1)	88	°C/W

1. Device mounted on FE-4 PCB 0.013 mm.

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

Symbol	Parameter	Conditions	Value							Unit
			SS12	SS13	SS14	SS15	SS16	SS18	SS19	
V <sub>F</sub>	Maximum Forward Voltage	I <sub>F</sub> = 1.0 A	500			700		850		mV
I <sub>R</sub>	Maximum Reverse Current at Rated V <sub>R</sub>	T <sub>A</sub> = 25°C	0.2							mA
		T <sub>A</sub> = 100°C	10							

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL PERFORMANCE CHARACTERISTICS

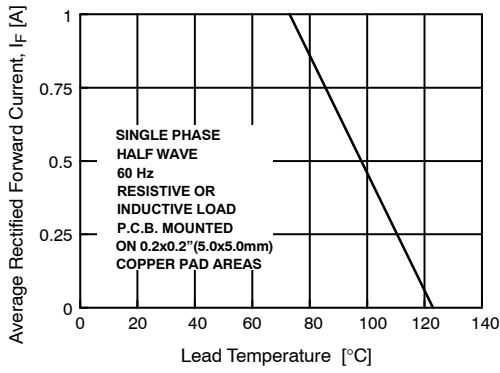


Figure 1. Forward Current Derating Curve

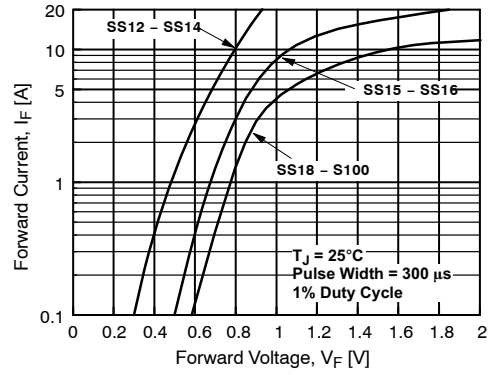


Figure 2. Forward Voltage Characteristics

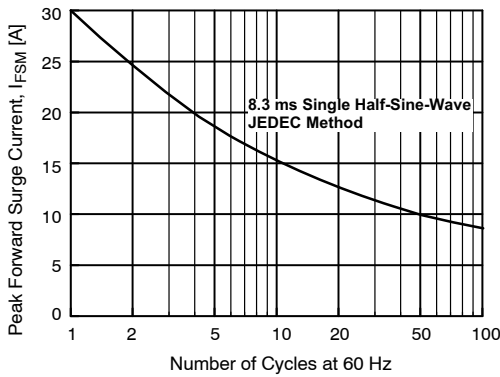


Figure 3. Non-Repetitive Surge Current

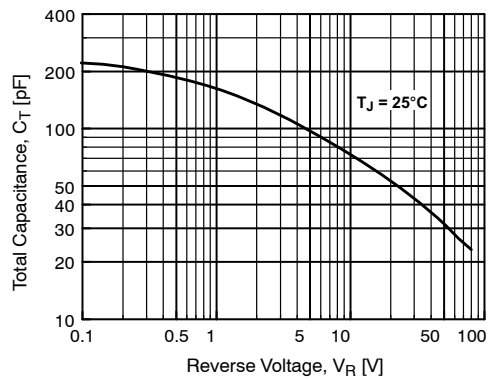


Figure 4. Total Capacitance

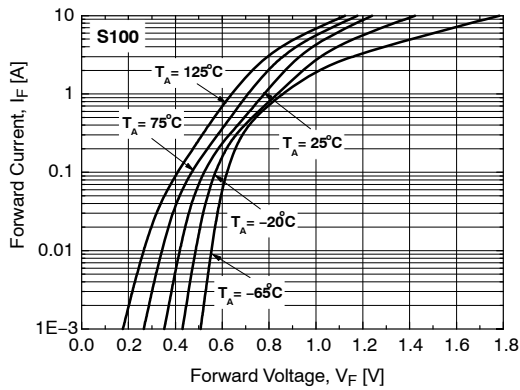


Figure 5. Low-Current Forward Voltage Characteristics

# MECHANICAL CASE OUTLINE

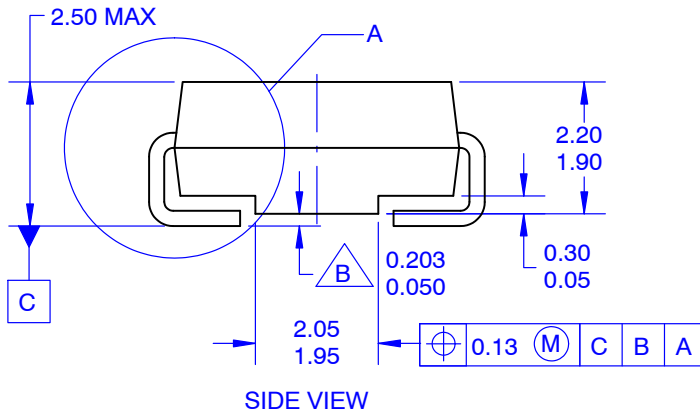
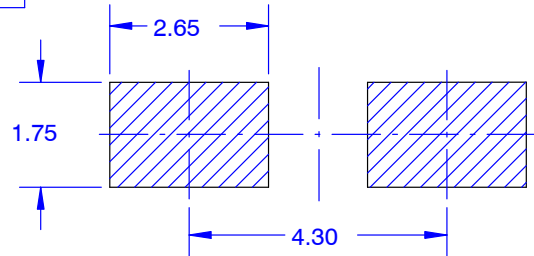
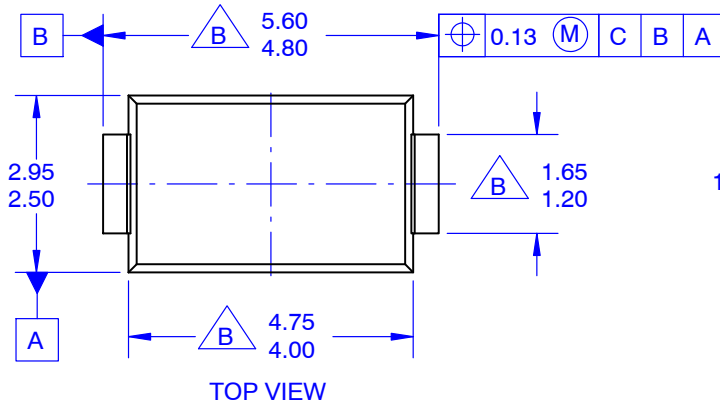
## PACKAGE DIMENSIONS

ON Semiconductor®



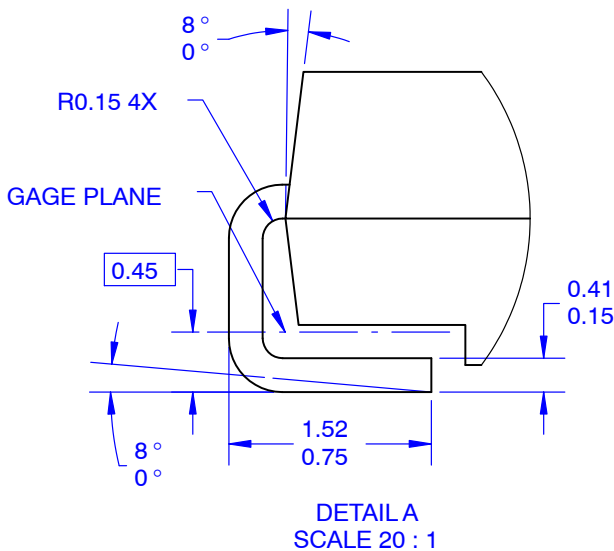
SMA  
CASE 403AE  
ISSUE O

DATE 31 AUG 2016



NOTES:

- A. EXCEPT WHERE NOTED, CONFORMS TO JEDEC DO214 VARIATION AC.
- B. DOES NOT COMPLY JEDEC STANDARD VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- E. DIMENSIONS AND TOLERANCE AS PER ASME Y14.5-2009.
- E. LAND PATTERN STD. DIOM5025X231M



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