

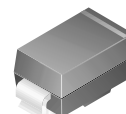
# SS12 - S100 Schottky Rectifier

## Features

- Glass-Passivated Junctions
- High-Current Capability, Low  $V_F$

## Applications

- Low Voltage,
- High-Frequency Inverters
- Free Wheeling
- Polarity Protection



**SMA/DO-214AC**  
COLOR BAND DENOTES CATHODE

## Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value								Units
		12	13	14	15	16	18	19	100	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
$I_{F(AV)}$	Maximum Average Forward Current: 0.375 inch Lead Length at $T_A = 75^\circ\text{C}$	1.0								A
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current: 8.3 ms Single Half-Sine-Wave	40								A
$T_{STG}$	Storage Temperature Range	-65 to +150								$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +125								$^\circ\text{C}$

## Thermal Characteristics<sup>(1)</sup>

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	1.1	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient <sup>(1)</sup>	160	$^\circ\text{C/W}$

### Note:

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

## Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Test	Value								Units
		Conditions	12	13	14	15	16	18	19	100	
V <sub>F</sub>	Forwarded Voltage	1.0 A	500			700		850			mV
I <sub>R</sub>	Reverse Current at rated V <sub>R</sub>	T <sub>A</sub> = 25°C	0.2								mA
		T <sub>A</sub> = 100°C	1.0								

## Typical Performance Characteristics

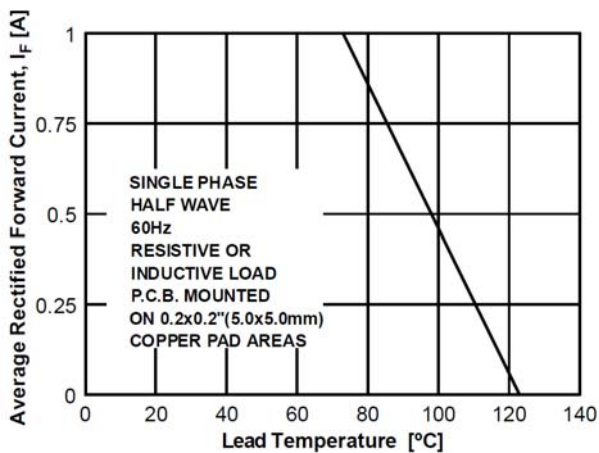


Figure 1. Forward Current Derating Curve

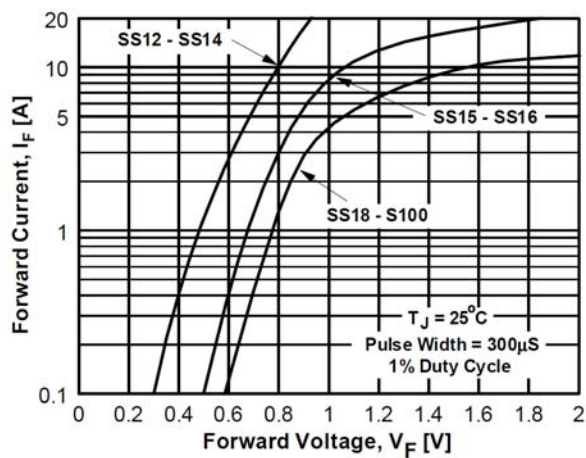


Figure 2. Forward Current Characteristics

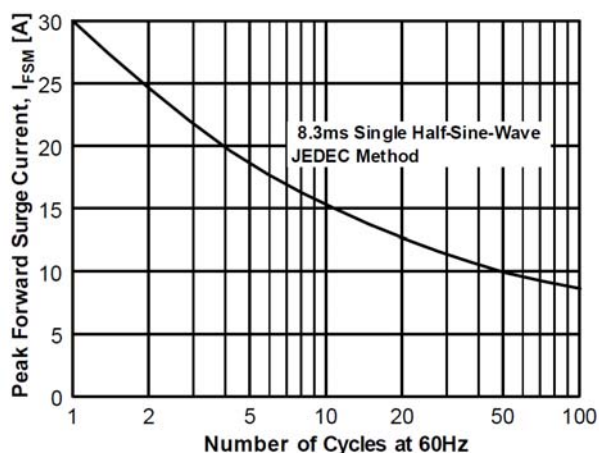


Figure 3. Non-Reverse Surge Current

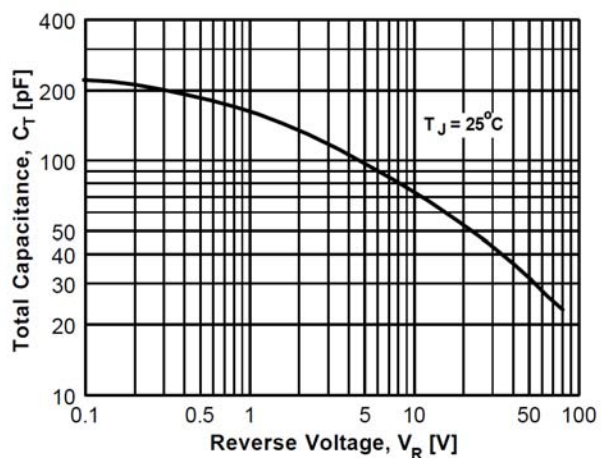
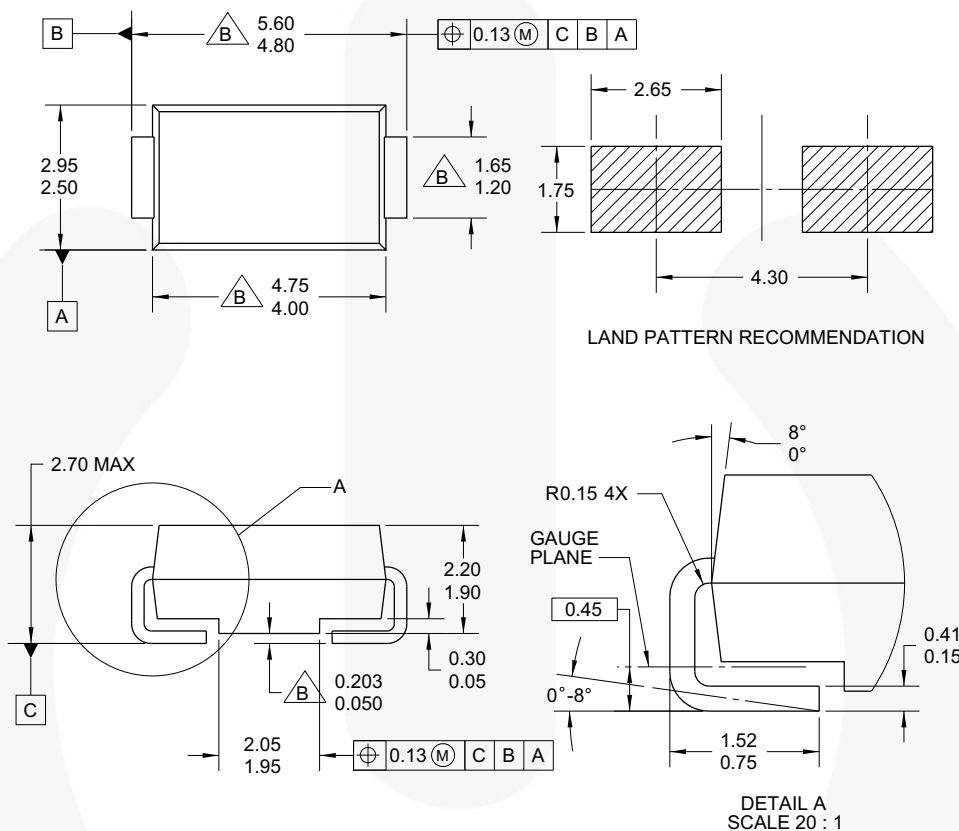


Figure 4. Total Capacitance

## Physical Dimensions

## DO-214AC



## NOTES:

- A. EXCEPT WHERE NOTED CONFORMS TO JEDEC DO214 VARIATION AC.
- $\triangle B$  DOES NOT COMPLY JEDEC STD. VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS.
- E. MOLD FLASH AND TIE BAR PROTRUSIONS.
- F. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
- G. LAND PATTERN STD. DIOM5025X231M.
- H. DRAWING FILE NAME: DO214ACREV1

Figure 5. 2-LEAD, SMA, JEDEC DO-214, VARIATION AC (ACTIVE)

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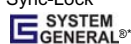



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