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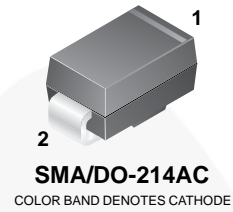


August 2015

# SSA210 Surface Mount Schottky Barrier Rectifier

## Features

- UL Flammability 94V-0 Classification
- MSL 1
- RoHS Compliant / Green Mold Compound
- Industrial Device Qualified per AEC-Q101 Standards.  
\* see authorized use policy



## Ordering Information

Part Number	Top Mark	Package	Packing Method
SSA210	SSA210	DO-214AC (SMA)	Tape and Reel

## 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	Unit
$V_{RRM}$	Recurrent Peak Reverse Voltage	100	V
$V_{RMS}$	RMS Voltage	70	V
$V_{DC}$	DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Forward Current	2	A
$I_{FSM}$	Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	50	A
$T_J$	Operating Junction Temperature Range	-55 to +175	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +175	$^\circ\text{C}$

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

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

Symbol	Parameter	Value	Unit
$\Psi_{JL}$	Typical Thermal Characteristics, Junction-to-Lead <sup>(2)</sup>	30	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Typical Thermal Resistance, Junction-to-Ambient	180	$^\circ\text{C}/\text{W}$

### Note:

1. Per JESD51-3 recommended thermal test board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm.
2. Thermocouple soldered at cathode lead.

## Electrical Characteristics

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

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_F$	Forward Voltage <sup>(3)</sup>	$I_F = 2.0 \text{ A}$			0.8	V
$I_R$	Reverse Current	$V_R = 100 \text{ V}$			0.05	mA
		$V_R = 100 \text{ V}, T_A = 100^\circ\text{C}$			20	
$T_{rr}$	Reverse Recovery Time	$I_F = 0.5 \text{ A}, I_R = 1 \text{ A}, I_{rr} = 0.25 \text{ A}$		8.02		ns

### Note:

3. Pulse test with Pulse width = 300  $\mu\text{s}$ , 1% duty cycle.

## Typical Performance Characteristics

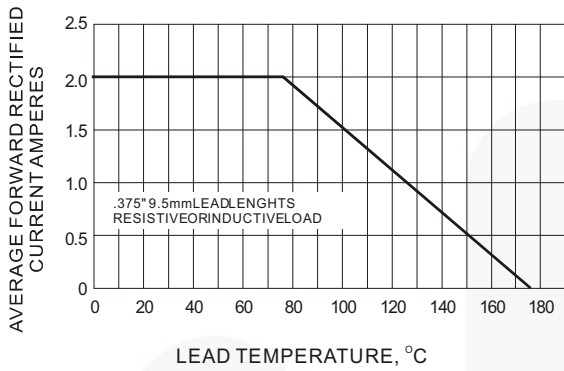


Figure 1. Forward Current Derating Curve

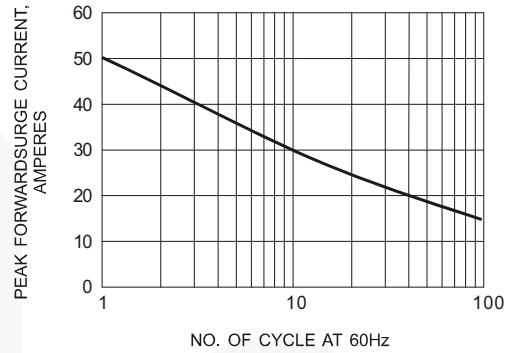


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

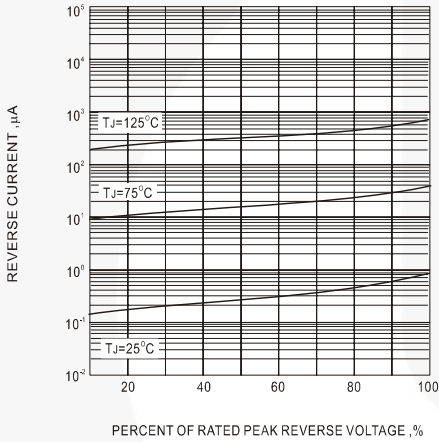


Figure 3. Typical Reverse Peak Characteristic

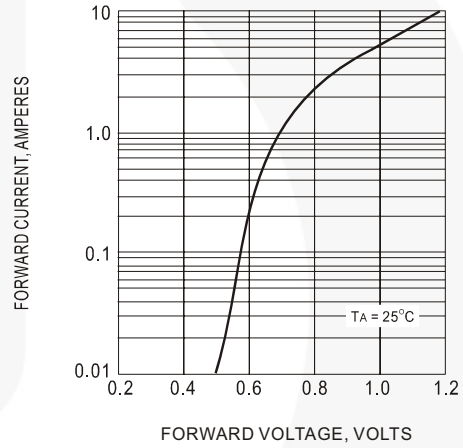


Figure 4. Typical Instantaneous Forward Characteristics

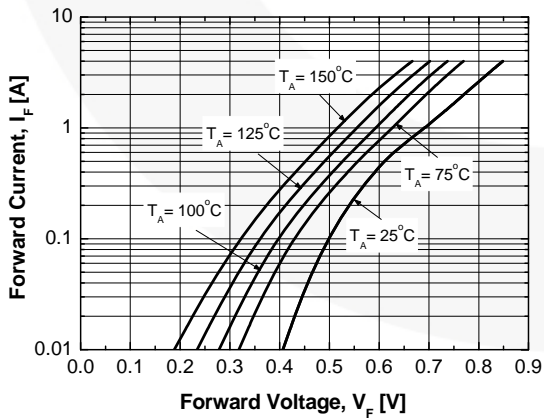


Figure 5. Typical Forward Characteristics

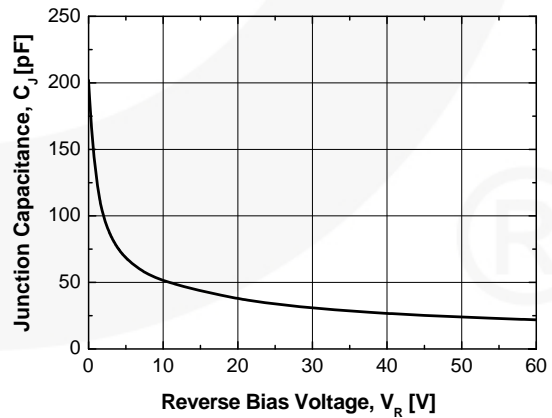
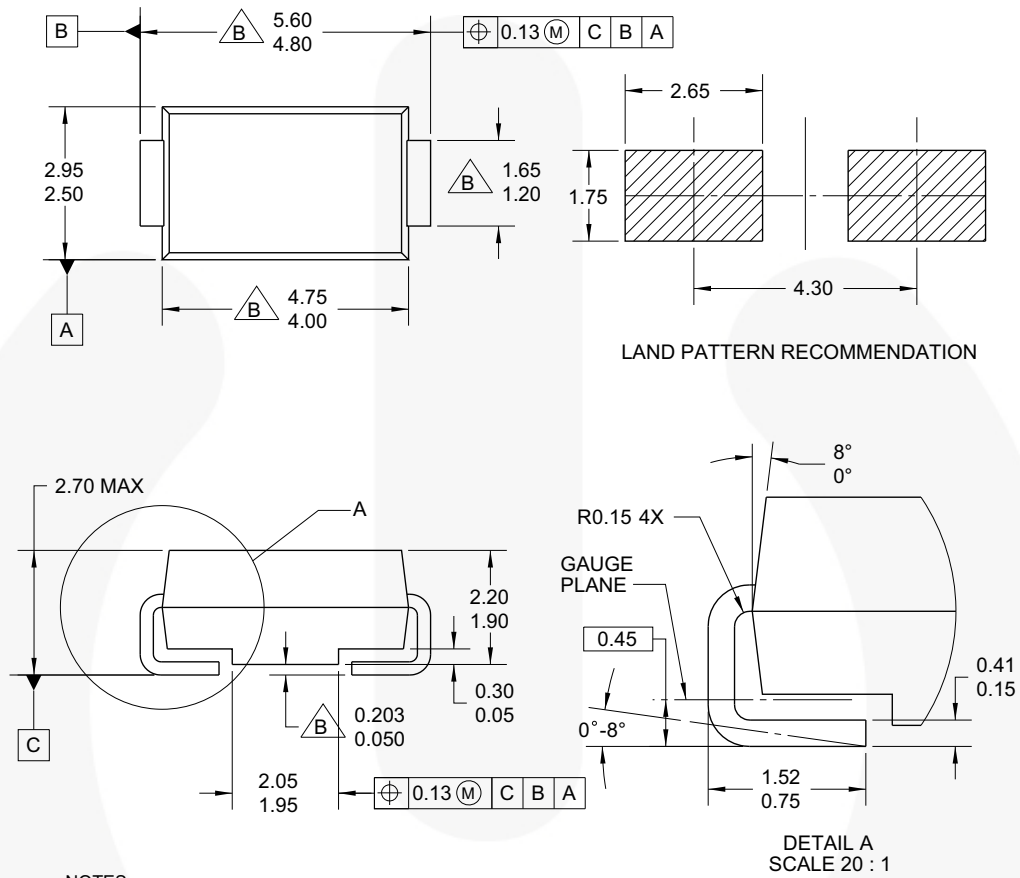


Figure 6. Typical Junction Capacitance

Physical Dimensions



NOTES:

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

Figure 7. 2-LEAD, SMA, JEDEC DO-214, VARIATION AC



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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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