

Surface Mount Schottky Barrier Rectifier

SSA210

Features

- UL Flammability 94 V-0 Classification
- MSL 1
- RoHS Compliant / Green Mold Compound
- Industrial Device Qualified per AEC-Q101 Standards
*see authorized use policy
- This is a Pb-Free and Halid Free Device

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

| Symbol | Rating | Value | Unit |
|--------------------|----------------------------------------------------------------------------------------------------|-------------|------|
| V _{RRM} | Recurrent Peak Reverse Voltage | 100 | V |
| V _{RMS} | RMS Reverse 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 | °C |
| T _{STG} | Storage Temperature Range | -55 to +175 | °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

| Symbol | Parameter | Ratings | Unit |
|------------------|------------------------------------------------------------|---------|------|
| Ψ _{JL} | Typical Thermal Characteristics, Junction-to-Lead (Note 2) | 30 | °C/W |
| R _{θJA} | Typical Thermal Resistance, Junction-to-Ambient | 180 | °C/W |

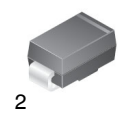
1. Per JESD51-3 recommended thermal test board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm.
2. Thermocouple soldered at cathode lead.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

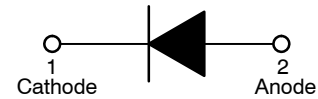
| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|-----------------|--------------------------|------------------------------------------------------------------------|-----|------|------|------|
| V _F | Forward Voltage (Note 3) | I _F = 2.0 A | - | - | 0.8 | V |
| I _R | Reverse Current | V _R = 100 V | - | - | 0.05 | mA |
| | | V _R = 100 V, T _A = 100 °C | - | - | 20 | mA |
| T _{rr} | Reverse Recovery Time | I _F = 0.5 A, I _R = 1 A, I _{rr} = 0.25 A | - | 8.02 | - | ns |

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.

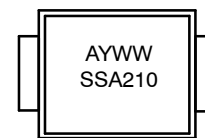
3. Pulse test with Pulse width = 300 μs, 1% duty cycle.



SMA
CASE 403AE



MARKING DIAGRAM



(Color Band Denotes Cathode)

- A = Assembly Location
- Y = Year
- WW = Work Week
- SSA210 = Specific Device Code

ORDERING INFORMATION

| Device | Package | Shipping† |
|--------|------------------|-----------------------|
| SSA210 | SMA (Pb-Free) | 7500 / Tape & Reel |

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, [BRD8011/D](#).

TYPICAL CHARACTERISTICS

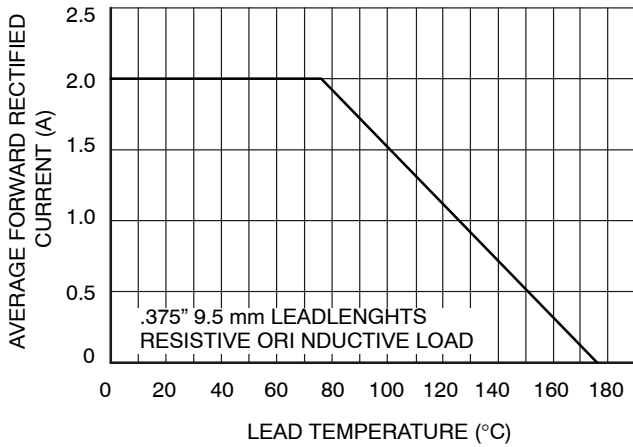


Figure 1. Forward Current Derating Curve

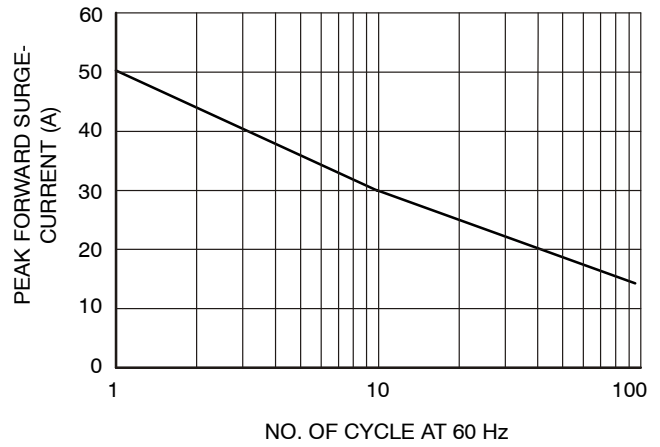


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

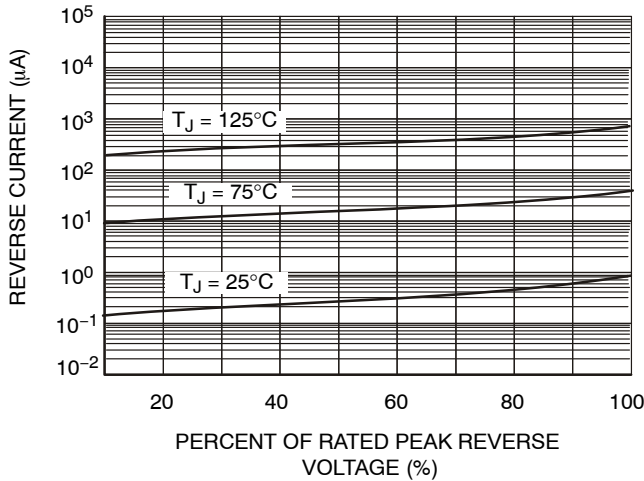


Figure 3. Typical Reverse Characteristics

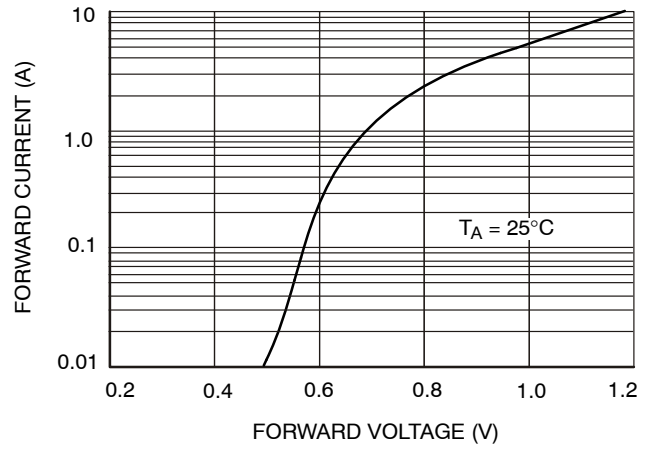


Figure 4. Typical Instantaneous Forward Characteristics

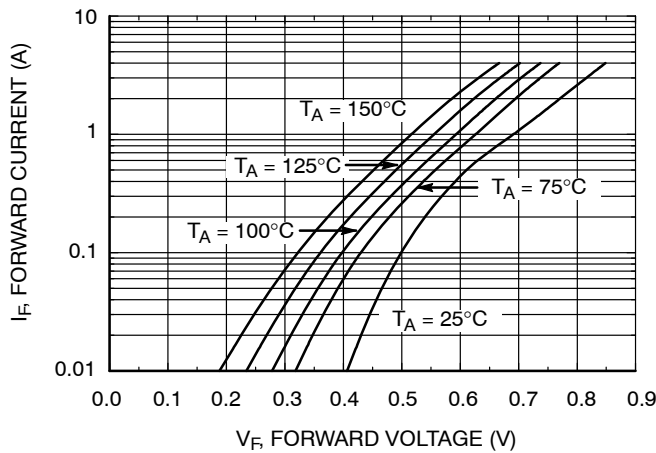


Figure 5. Typical Forward Characteristics

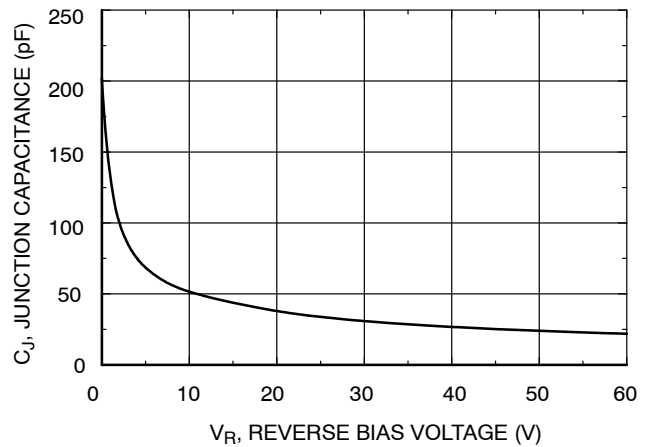


Figure 6. Typical Junction Capacitance

MECHANICAL CASE OUTLINE

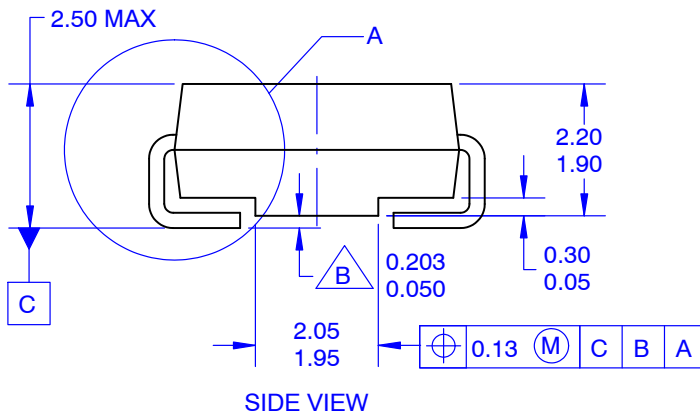
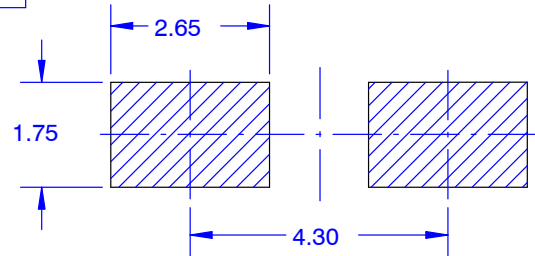
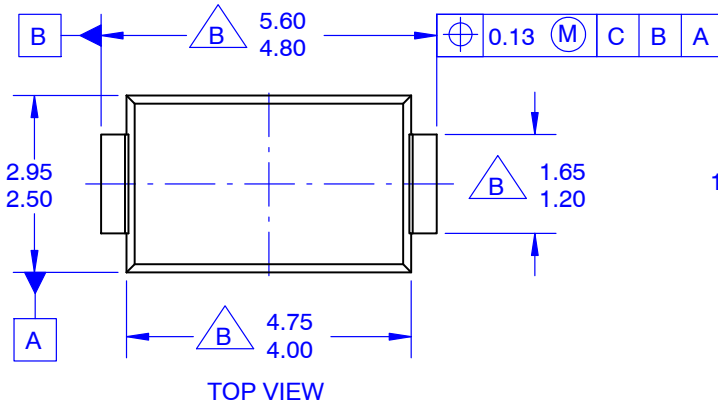
PACKAGE DIMENSIONS

ON Semiconductor®



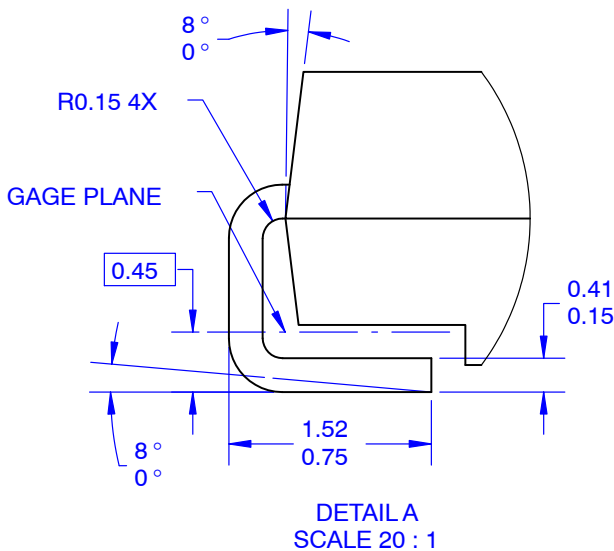
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DATE 31 AUG 2016



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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