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The logo for onsemi, featuring the word "onsemi" in a dark teal, lowercase, sans-serif font. The letter "i" is stylized with a white dot and a teal vertical bar. A small orange triangle is positioned above the top right of the "i". A trademark symbol (TM) is located to the right of the logo.

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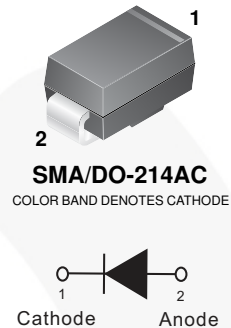


July 2018

SSA36 Surface Mount Schottky Barrier Rectifier

Features

- UL Flammability 94V-0 Classification
- MSL 1
- RoHS Compliant / Green Mold Compound



Ordering Information

| Part Number | Top Mark | Package | Packing Method |
|-------------|----------|----------------|----------------|
| SSA36 | SSA36 | 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 | 60 | V |
| V_{RMS} | RMS Voltage | 42 | V |
| V_{DC} | DC Blocking Voltage | 60 | V |
| $I_{F(AV)}$ | Average Forward Current at $T_L = 75^\circ\text{C}$ | 3 | A |
| I_{FSM} | Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed on Rated Load | 80 | A |
| T_J | Operating Junction Temperature Range | -55 to +150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |

SSA36 — Surface Mount Schottky Barrier Rectifier

Thermal Characteristics⁽¹⁾

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

| Symbol | Parameter | Value | Unit |
|-----------------|--|-------|---------------------------|
| Ψ_{JL} | Typical Thermal Characteristics, Junction-to-Lead ⁽²⁾ | 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 ⁽³⁾ | $I_F = 3.0 \text{ A}$ | | | 0.75 | V |
| I_R | DC Reverse Current | $V_R = 60 \text{ V}$ | | | 0.1 | mA |
| | | $V_R = 60 \text{ V}, T_A = 100^\circ\text{C}$ | | | 20 | |
| T_{rr} | Reverse Recovery Time | $I_F = 0.5 \text{ A}, I_R = 1 \text{ A}, I_{rr} = 0.25 \text{ A}$ | | 10.74 | | ns |

Note:

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

Typical Performance Characteristics

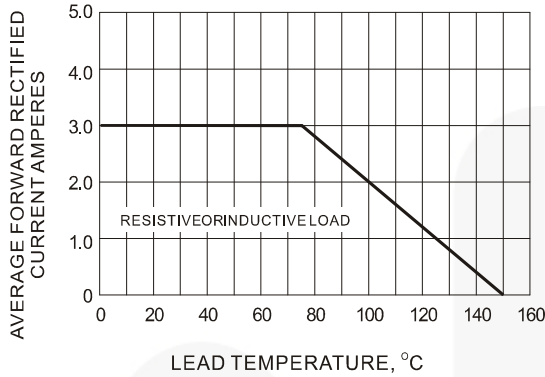


Figure 1. Forward Current Derating Curve

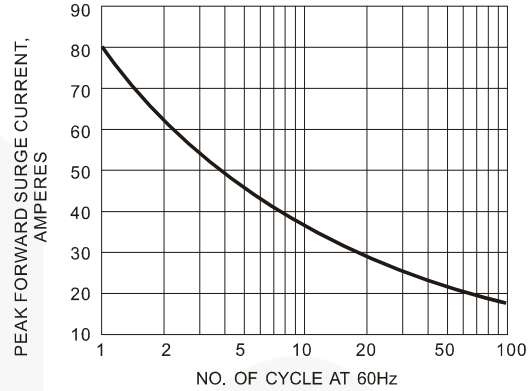


Figure 2. Maximum Non-Repetitive Surge Current

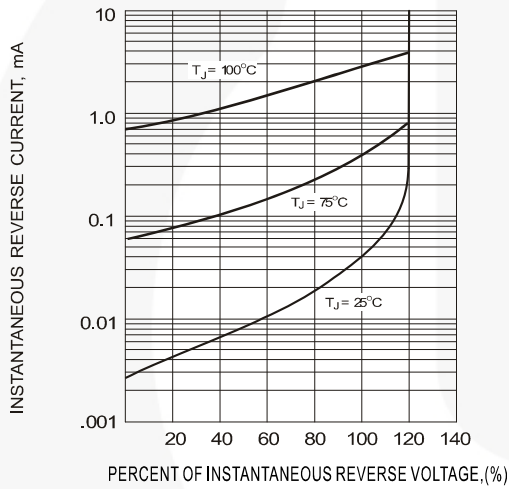


Figure 3. Typical Reverse Characteristic

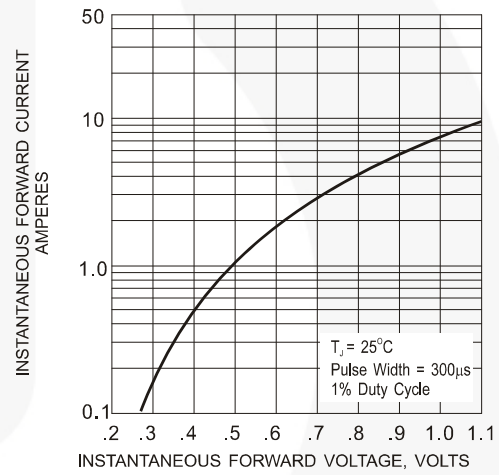


Figure 4. Typical Instantaneous Forward Characteristics

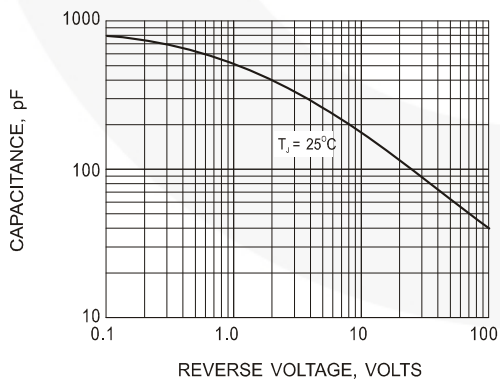


Figure 5. Typical Junction Capacitance

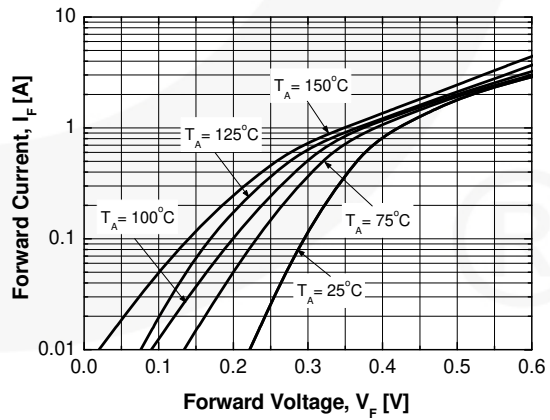
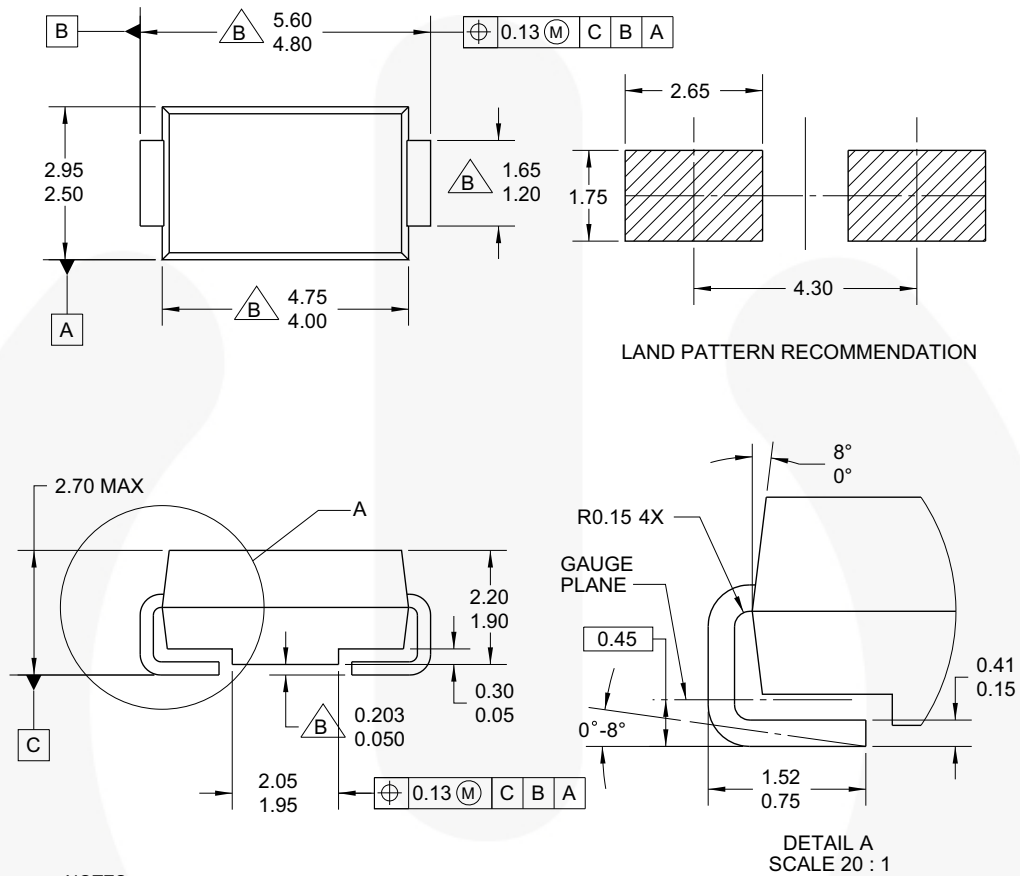


Figure 6. Typical Forward Characteristics

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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|--------------------------|-----------------------|---|
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