



New Product

SS3H9 and SS3H10

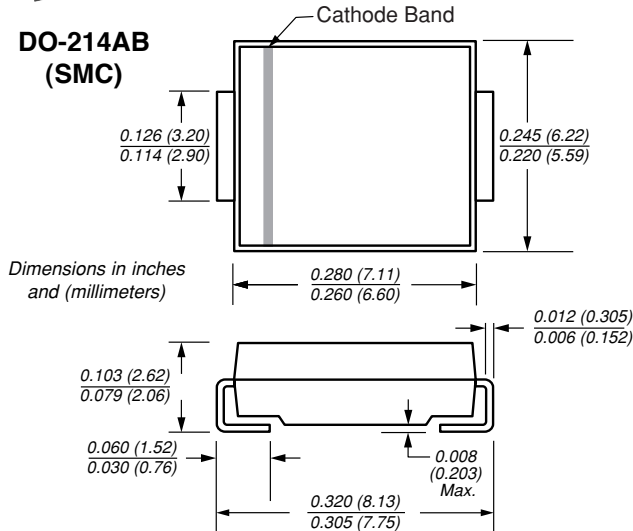
Vishay Semiconductors
formerly General Semiconductor



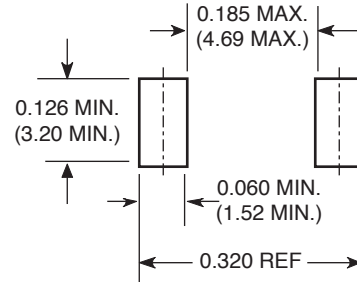
High Voltage Surface Mount Schottky Barrier Rectifiers

Reverse Voltage 90 to 100V
Forward Current 3.0A

DO-214AB
(SMC)



Mounting Pad Layout



Mechanical Data

Case: JEDEC DO-214AB molded plastic body

Terminals: Solder plated, solderable per MIL-STD750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.007 oz., 0.25 g

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | SS3H9 | SS3H10 | Unit |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|--------|------|
| Device marking code | | MS9 | MS10 | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 90 | 100 | V |
| Working peak reverse voltage | V _{RWM} | 90 | 100 | V |
| Maximum DC blocking voltage | V _{DC} | 90 | 100 | V |
| Maximum average forward rectified current at: T _L = 115°C | I _{F(AV)} | 3.0 | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 100 | | A |
| Peak repetitive reverse surge current at t _p = 2.0μs, 1KHz | I _{RRM} | 1.0 | | A |
| Critical rate of rise of reverse voltage | dv/dt | 10,000 | | V/μs |
| Typical thermal resistance – junction to lead T _L = 25°C – junction to ambient ⁽²⁾ | R _{θJL} R _{θJA} | 9.7 32 | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | –65 to +175 | | °C |

Electrical Characteristics (T_A = 25°C unless otherwise noted)

| | | | | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|-------------|----------|
| Maximum instantaneous forward voltage at: ⁽¹⁾ | I _F = 3.0A, T _J = 25°C I _F = 3.0A, T _J = 125°C | V _F | 0.8 0.65 | V |
| Maximum DC reverse current at rated DC blocking voltage | T _J = 25°C T _J = 125°C | I _R | 20 4 | μA mA |

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle
(2) PCB mounted

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Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

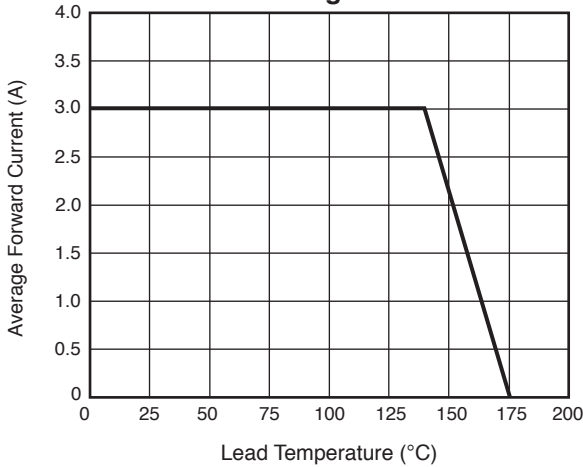


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

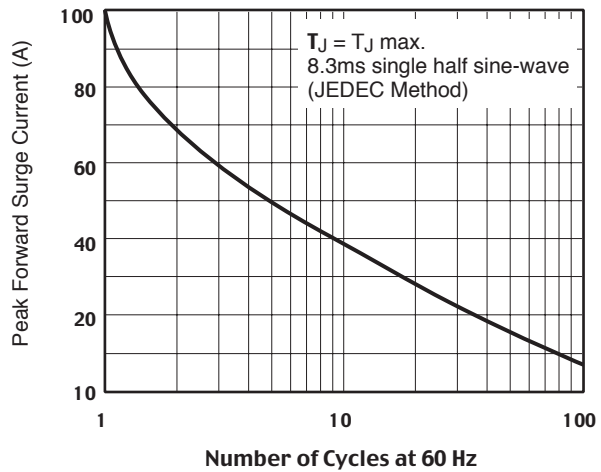


Fig. 3 – Typical Instantaneous Forward Characteristics

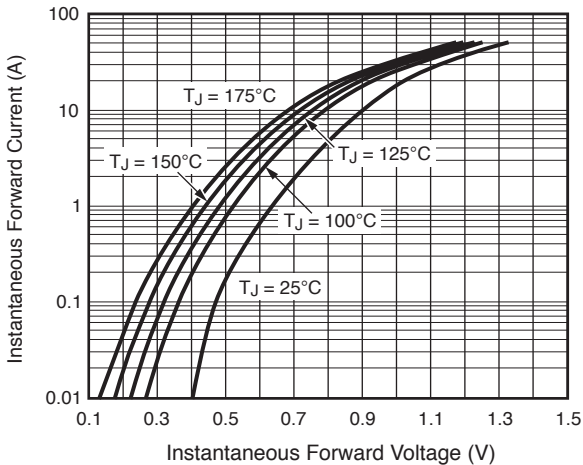


Fig. 4 – Typical Reverse Characteristics

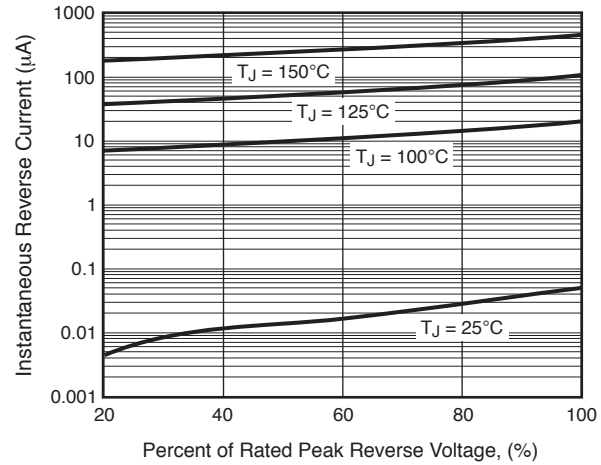


Fig. 5 – Typical Junction Capacitance

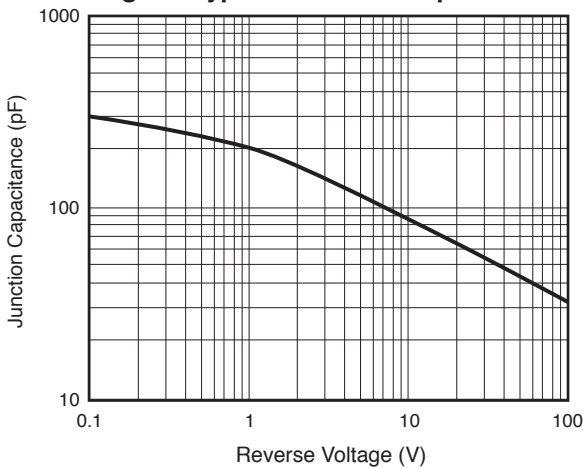


Fig. 6 – Typical Transient Thermal Impedance

