

WSB5523M

**Ultra Low Forward Voltage,
Schottky Barrier Diode**

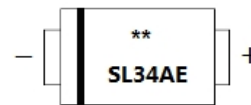
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)

Features

- Schottky barrier rectifier
- Guarding protection
- Ultra Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance
- Standard products are Pb-free and Halogen-free



SMA (DO-214AC)



**** = Date Code(YM)**

SL34AE = Device code

Pin configuration and Marking

MECHANICAL DATA

- Case: SMA molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: ANY

Order information

| Device | Package | Shipping |
|---------------|----------------|----------------|
| WSB5523M-2/TR | SMA (DO-214AC) | 5000/Tape&Reel |

Absolute maximum ratings

| Parameter | Symbol | Value | Unit |
|---|-------------|-----------|-------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 40 | V |
| Maximum RMS voltage | V_{RWS} | 28 | V |
| Maximum DC blocking voltage | V_{DC} | 40 | V |
| Maximum average forward rectified current at $T_L=100^{\circ}C$ | $I_{F(AV)}$ | 3.0 | A |
| Peak forward surge current 8.3ms single half-sine-wave | I_{FSM} | 80 | A |
| Operating junction temperature range | T_J | -55 - 125 | $^{\circ}C$ |
| Storage temperature range | T_{STG} | -55 - 150 | $^{\circ}C$ |

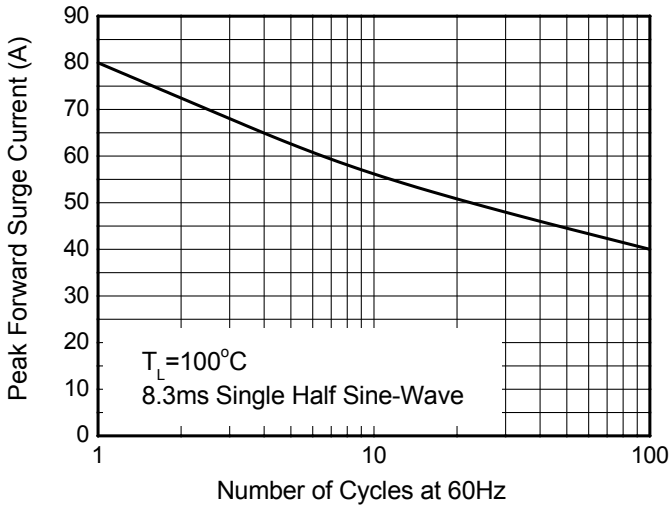
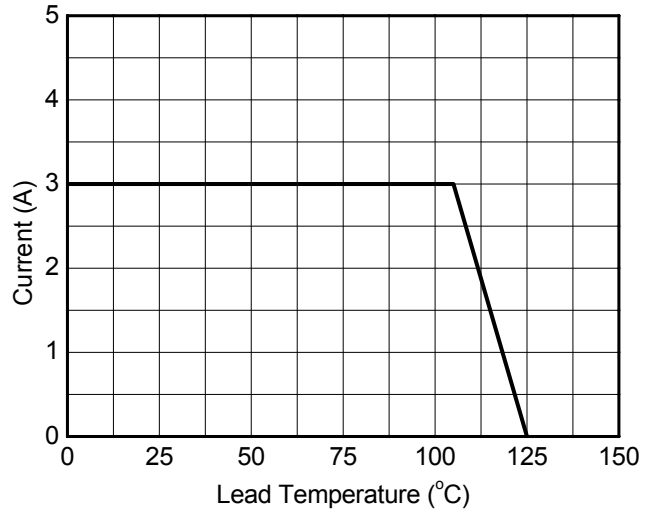
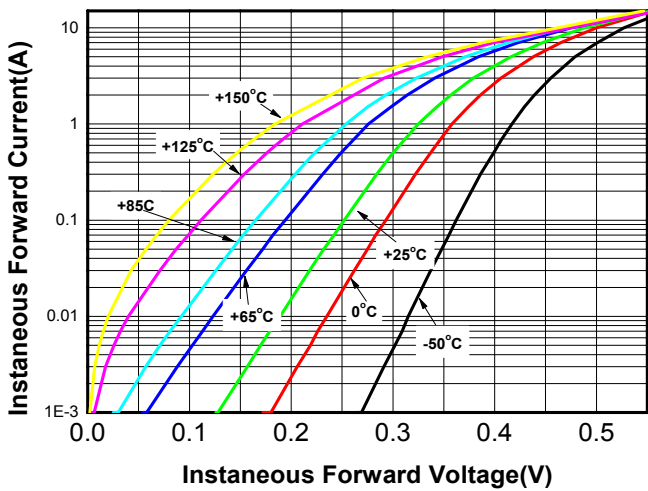
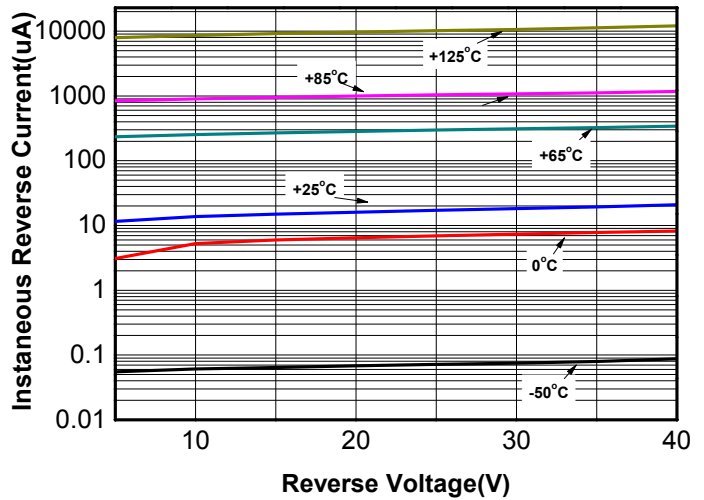
Thermal Characteristics

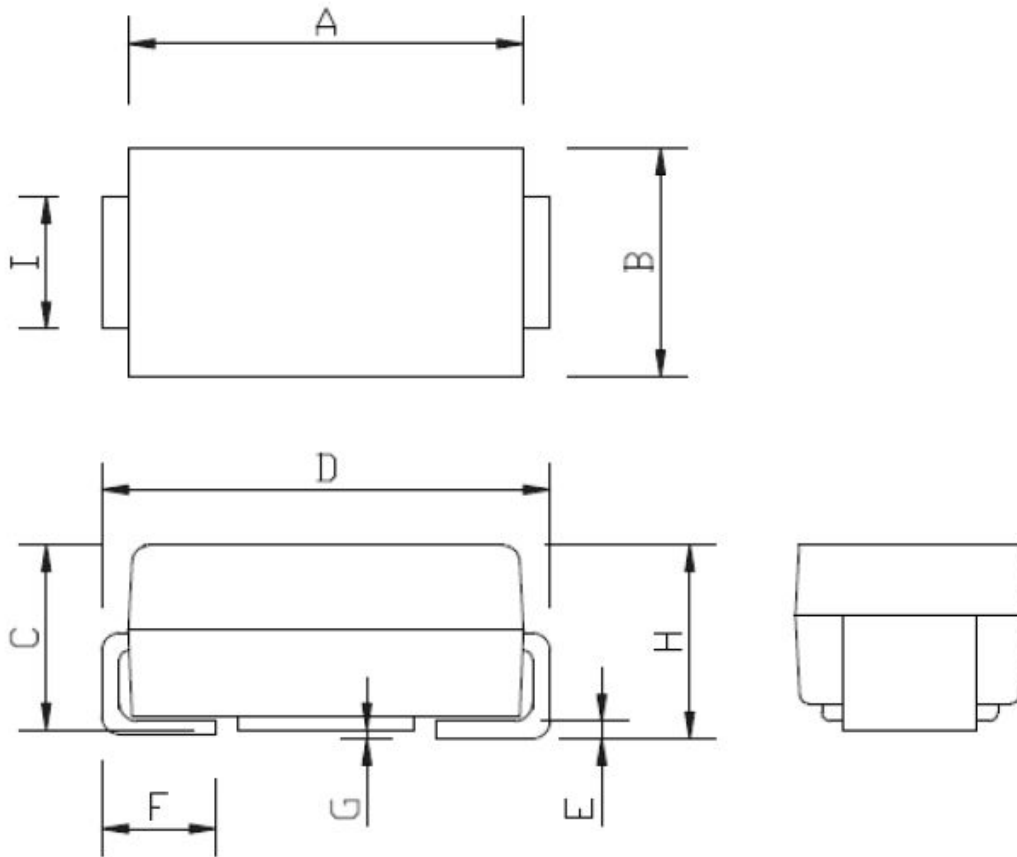
| Parameter | Symbol | Value | Unit |
|--|-----------------|-------|---------------|
| Maximum thermal resistance (Junction to Lead) | $R_{\theta JL}$ | 20 | $^{\circ}C/W$ |
| Maximum thermal resistance (Junction to Ambient) | $R_{\theta JA}$ | 80 | $^{\circ}C/W$ |

Electronics characteristics ($T_A=25^{\circ}C$)

| Parameter | Symbol | Value | Unit |
|--|--------|-------|------|
| Maximum instantaneous forward voltage @ $I_F=3.0A$ * | V_F | 0.4 | V |
| Maximum DC reverse current at rated reverse voltage @ $T_J=25^{\circ}C$ | I_R | 0.2 | mA |
| Maximum DC reverse current at rated reverse voltage @ $T_J=125^{\circ}C$ | I_R | 50 | mA |

*: Pulse test, Pulse width 300us, duty cycle 1%, Typical Value is 0.36V

Typical characteristics (Ta=25°C, unless otherwise noted)

Peak Forward Surge Current

Forward Derating Curve

Typical Forward Characteristics

Typical Reverse Characteristics

Package outline dimensions
SMA (DO-214AC)


| Symbol | Dimensions in millimeter | |
|--------|--------------------------|------|
| | Min. | Max. |
| A | 4.25 | 4.65 |
| B | 2.40 | 2.80 |
| C | 1.85 | 2.15 |
| D | 4.85 | 5.35 |
| E | 0.10 | 0.30 |
| F | 0.90 | 1.50 |
| G | 0.20 Max. | |
| H | 1.90 | 2.30 |
| I | 1.35 | 1.65 |