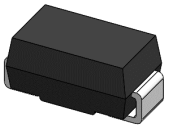
# 3A,50-100V Schottky Barrier Rectifiers

## Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260℃/10 seconds

Pb
RoHS
COMPLIANT



SMA(DO-214AC)

## Applications

For use in low voltage, high frequency inverters, free-wheeling and polarity protection application.

## Maximum Ratings & Electrical Characteristics (TA=25℃ unless otherwise noted)

| Parameter | Symbol | SL35A | SL36A | SL37A | SL38A | SL39A | SL310A | Unit |
|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 60 | 70 | 80 | 90 | 100 | V |
| Maximum RMS voltage | $V_{RMS}$ | 35 | 42 | 49 | 56 | 63 | 70 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 50 | 60 | 70 | 80 | 90 | 100 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 3 | | | | | | A |
| Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode | $I_{FSM}$ | 80 | | | | | | A |
| Operating junction temperature range | $T_J$ | -55 to +150 | | | | | | °C |
| Storage temperature range | $T_{STG}$ | -55 to +150 | | | | | | °C |

## Thermal-Mechanical Specifications (TA=25℃ unless otherwise noted)

| Parameter | Symbol | Typ | Unit |
|---|---|---|---|
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 90 | °C /W |
| Thermal Resistance, Junction to Case | $R_{\theta JC}$ | 20 | °C /W |
| Thermal Resistance, Junction to Lead | $R_{\theta JL}$ | 25 | °C /W |

**Electrical Specifications**($T_A$=25℃ unless otherwise noted)

| Parameter | Symbol | Test Conditions | SL35A | SL36A | SL37A | SL38A | SL39A | SL310A | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Forward Drop Voltage | $V_F$ | $I_F$=3A | 0.55 | | 0.75 | | | | V |
| Reverse leakage current @$V_R$ | $I_R$ | $T_J$ =25℃ | 0.2 | | 0.05 | | | | mA |
| | | $T_J$ =100℃ | 50 | | 4 | | | | |
| Typical junction capacitance | $C_J$ | 4.0 V 1 MHZ | 285 | | | | | | pF |

Note：

1. Mounted on copper pad area of 0.2x0.2” (5.0 x 5.0mm) to each terminal.

## Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

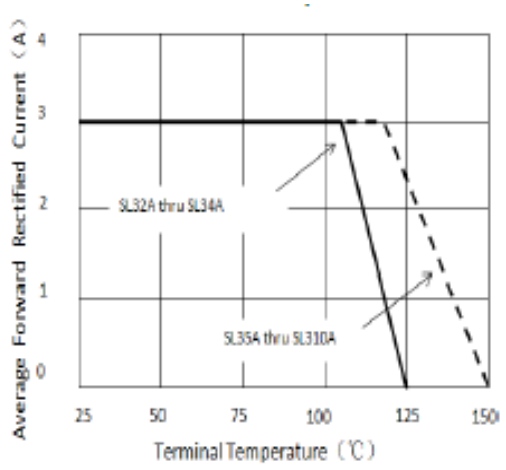



Figure 1.Forward Current Derating Curve

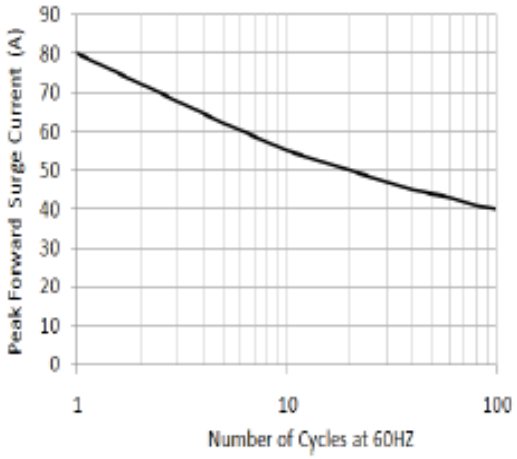



Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

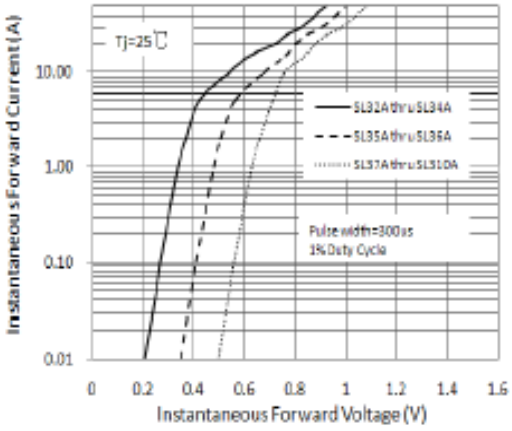



Figure 3. Typical Reverse Characteristics

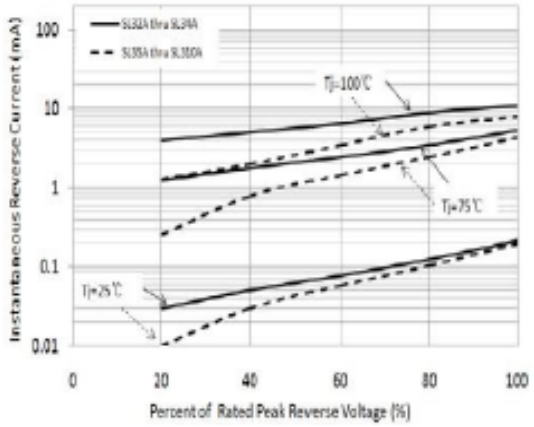



Figure 4. Typical Instantaneous Forward Characteristics

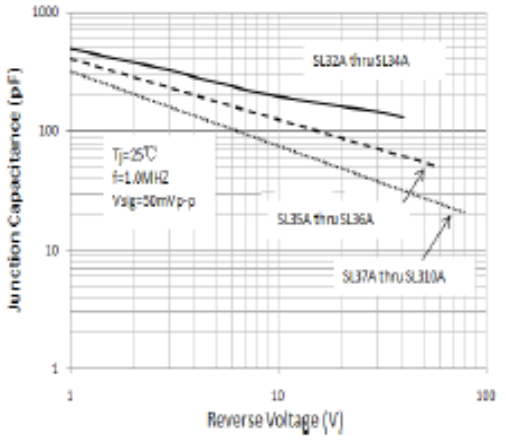
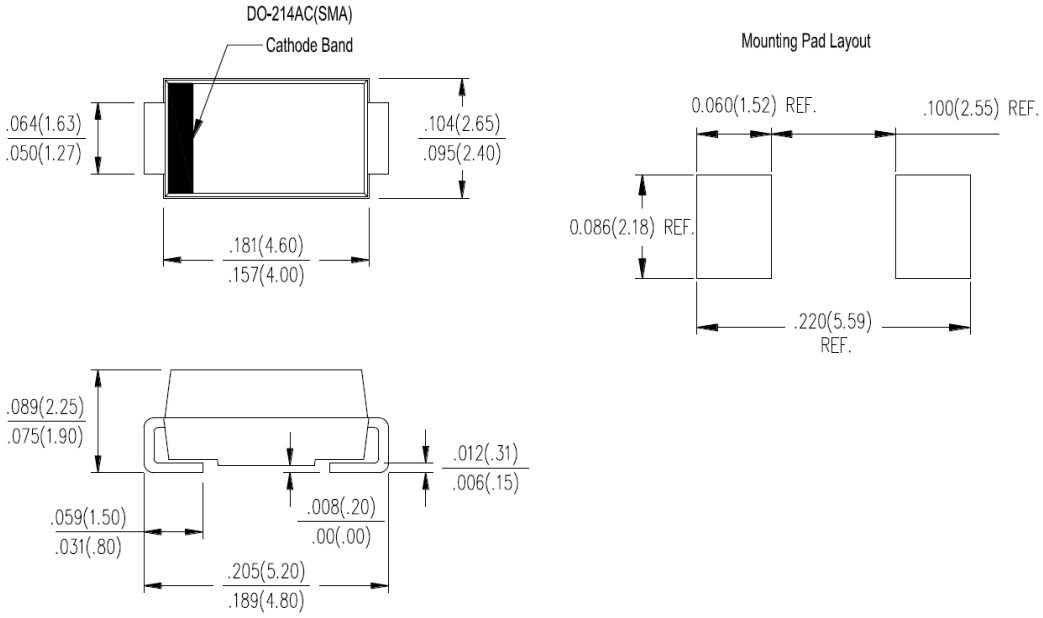



Figure 5. Typical Junction Capacitance

## Package Outline Dimensions

in inches (millimeters)

### SMA (DO-214AC)




## Revision History

| Document Version | Date of release | Description of changes |
|---|---|---|
| Rev.A | 2021.06.01 | Released Datasheet |
| Rev.B | 2023.10.19 | Modify document format |

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