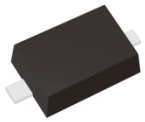
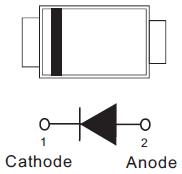
# RB521S30-AU

## SCHOTTKY BARRIER RECTIFIER

| Voltage | 30 V | Current | 0.2 A |
|---|---|---|---|

**SOD-523**






## Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

## Mechanical Data

- Case: SOD-523 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00005 ounces, 0.0014 grams

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

| PARAMETER | SYMBOL | LIMIT | UNITS |
|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 30 | V |
| Maximum Rms Voltage | $V_{RMS}$ | 21 | V |
| Maximum Dc Blocking Voltage | $V_{DC}$ | 30 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 0.2 | A |
| Peak Forward Surge Current: 1 s Single Half Sine-Wave Superimposed On Rated Load | $I_{FSM}$ | 1 | A |
| Typical Junction Capacitance<br>Measured at 1 MHZ And Applied $V_R$ = 4 V | $C_J$ | 8 | pF |
| Typical Thermal Resistance | $R_{\theta JA}$ (1) | 710 | °C/W |
| Operating Junction Temperature Range | $T_J$ | -55~125 | °C |
| Storage Temperature Range | $T_{STG}$ | -55~125 | °C |

# RB521S30-AU

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

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 10 mA, $T_J$ = 25 °C | - | - | 0.35 | V |
| | | $I_F$ = 200 mA, $T_J$ = 25 °C | - | - | 0.5 | |
| | | $I_F$ = 10 mA, $T_J$ = 100 °C | - | 0.16 | - | |
| | | $I_F$ = 200 mA, $T_J$ = 100 °C | - | 0.44 | - | |
| Reverse Current | $I_R$ (2) | $V_R$ = 10 V, $T_J$ = 25 °C | - | - | 10 | uA |
| | | $V_R$ = 30 V, $T_J$ = 25 °C | - | - | 100 | |
| | | $V_R$ = 30 V, $T_J$ = 100 °C | - | 670 | - | |

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Short duration pulse test used to minimize self-heating effect.

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## TYPICAL CHARACTERISTIC CURVES

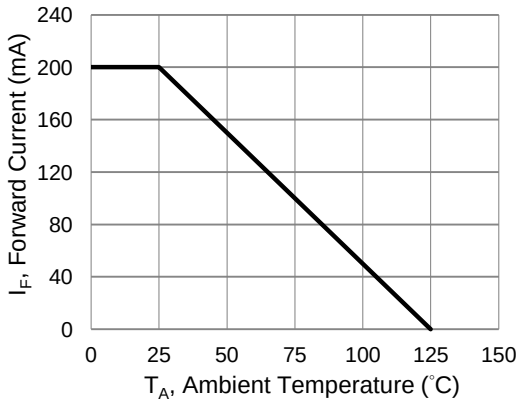



Fig.1 Forward Current Derating Curve

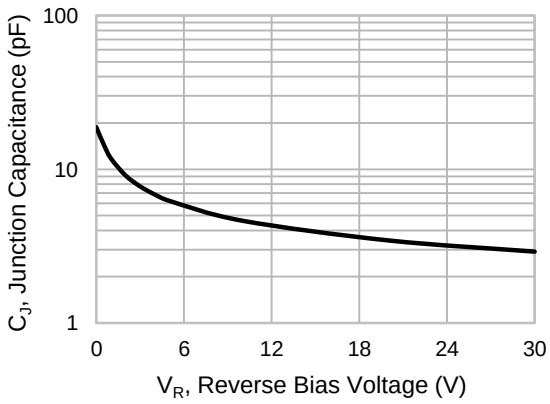



Fig.2 Typical Junction Capacitance

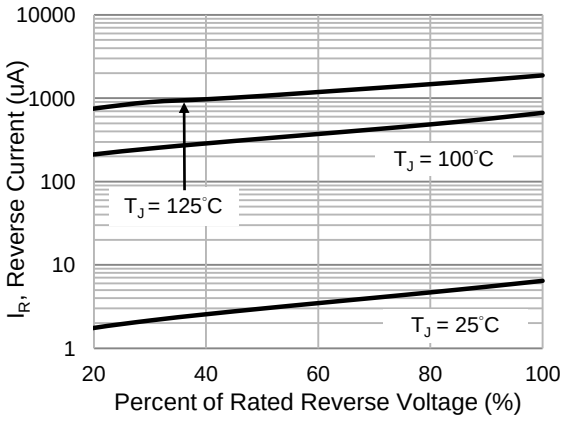



Fig.3 Typical Reverse Characteristics

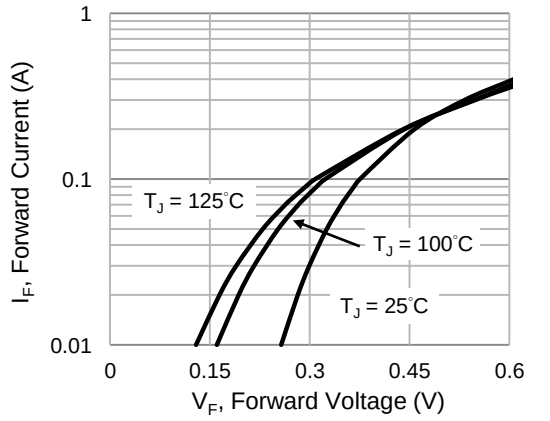



Fig.4 Typical Forward Characteristics

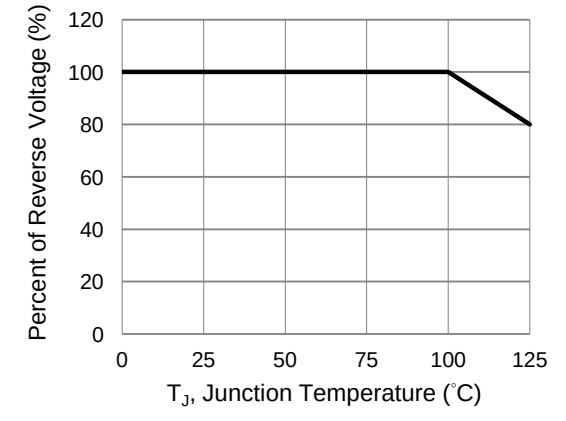



Fig.5 Operating Temperature Derating Curve

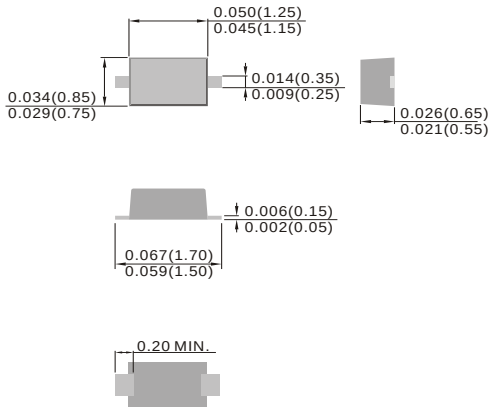
# RB521S30-AU

## Part No Packing Code Version

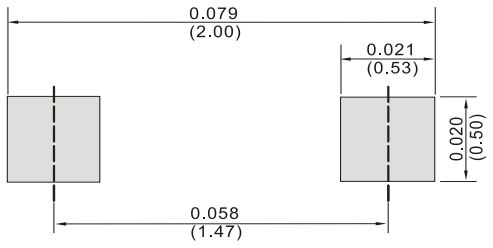
| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|---|---|---|---|---|
| RB521S30-AU_R1_000A1 | SOD-523 | 5K pcs / 7” reel | 21 | Halogen free |

## Packaging Information & Mounting Pad Layout

SOD-523 Dimension — Unit: inch(mm)




SOD-523 Pad Layout — Unit: inch(mm)



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