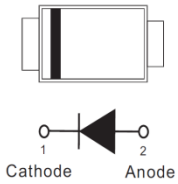
# SS10150FL-AU

## Surface Mount Schottky Barrier Rectifier

| Voltage | 150 V | Current | 1 A |
|---|---|---|---|

**SOD-123FL**






### Features

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

### Mechanical Data

- Case : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0173 grams

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

| PARAMETER | | SYMBOL | LIMIT | UNITS |
|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | 150 | V |
| Maximum RMS Voltage | | $V_{RMS}$ | 105 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 150 | V |
| Maximum Average Forward Current | | $I_{F(AV)}$ | 1 | A |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | | $I_{FSM}$ | 30 | A |
| Typical Junction Capacitance<br>Measured at 1 MHZ And Applied $V_R$ = 4 V | | $C_J$ | 40 | pF |
| Typical Thermal Resistance | (Note 1) | $R_{\theta JA}$ | 200 | °C/W |
| | (Note 2) | $R_{\theta JC}$ | 32 | |
| | (Note 2) | $R_{\theta JL}$ | 32 | |
| Operating Junction Temperature Range | | $T_J$ | -55~150 | °C |
| Storage Temperature Range | | $T_{STG}$ | -55~150 | °C |

# SS10150FL-AU

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

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 0.5 A, $T_J$ = 25 °C | - | 0.75 | - | V |
| | | $I_F$ = 1 A, $T_J$ = 25 °C | - | - | 0.85 | V |
| | | $I_F$ = 0.5 A, $T_J$ = 125 °C | - | 0.6 | - | V |
| | | $I_F$ = 1 A, $T_J$ = 125 °C | - | 0.67 | - | V |
| Reverse Current(Note 3) | $I_R$ | $V_R$ = 120 V, $T_J$ = 25 °C | - | 0.15 | - | uA |
| | | $V_R$ = 150 V, $T_J$ = 25 °C | - | - | 30 | |
| | | $V_R$ = 150 V, $T_J$ = 125 °C | - | 110 | - | |

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Mounted on a FR4 PCB, single-sided copper, with 100 $cm^2$ copper pad area.
3. Short duration pulse test used to minimize self-heating effect.

# SS10150FL-AU

## TYPICAL CHARACTERISTIC CURVES

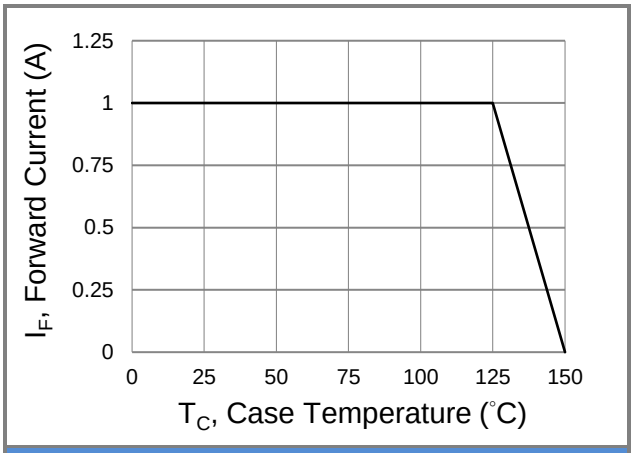



Fig.1 Forward Current Derating Curve

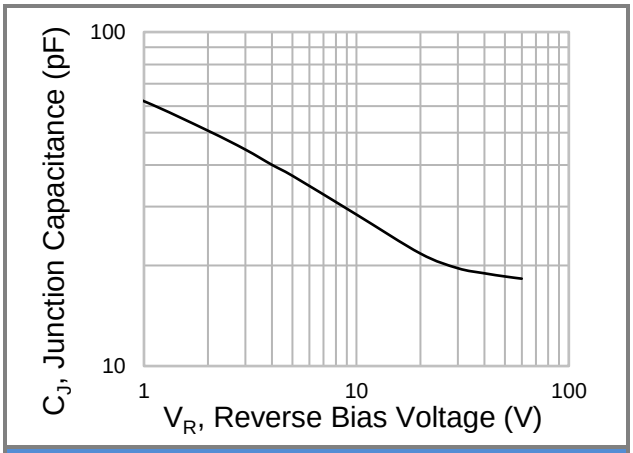



Fig.2 Typical Junction Capacitance

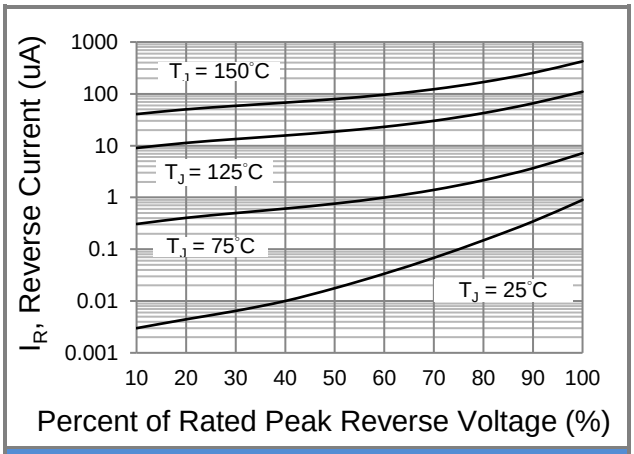



Fig.3 Typical Reverse Characteristics

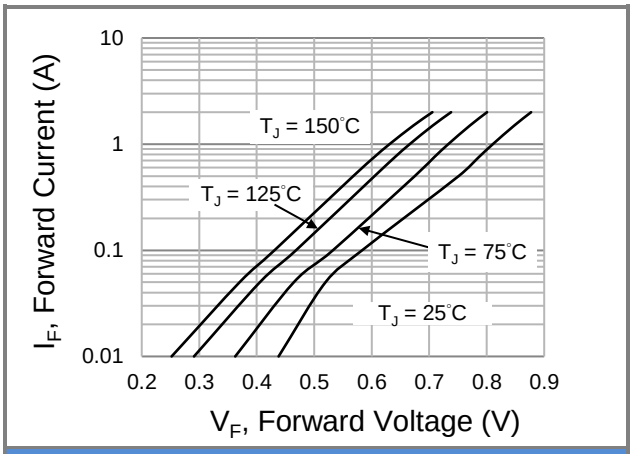



Fig.4 Typical Forward Characteristics

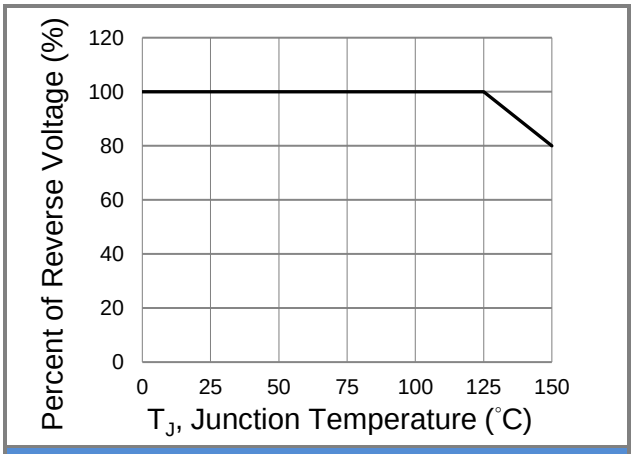



Fig.5 Operating Temperature Derating Curve

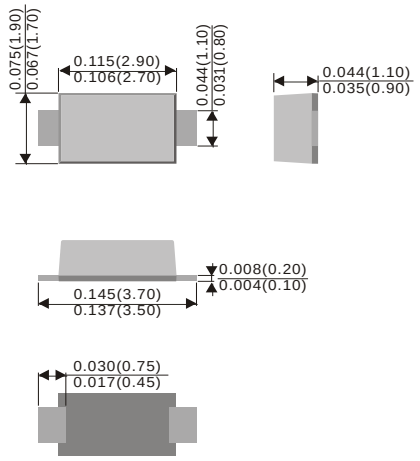
# SS10150FL-AU

## Part No. Packing Code Version

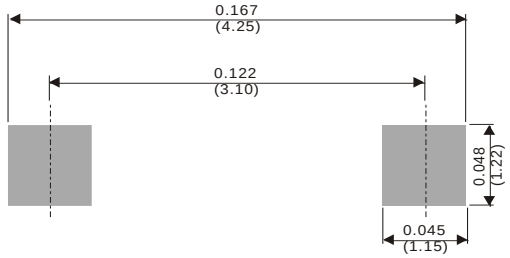
| Part No. | Package Type | Packing Type | Marking | Version |
|---|---|---|---|---|
| SS10150FL-AU | SOD-123FL | 3K pcs / 7" Reel | G15 | Halogen free RoHS compliant |

## Packaging Information & Mounting Pad Layout

SOD-123FL Dimension — Unit: inch(mm)




SOD-123FL Pad Layout — Unit: inch(mm)



# SS10150FL-AU

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