Elektronische Bauelemente

# SBL30H100RF

**VOLTAGE 100V**

**30.0 Amp Low VF Schottky Barrier Rectifiers**

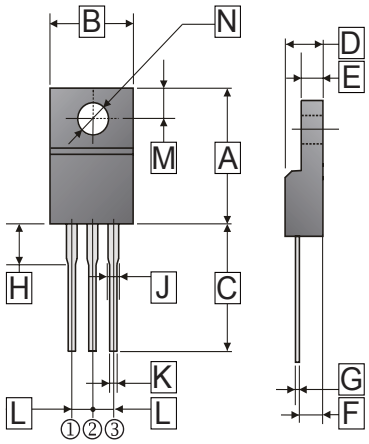
RoHS Compliant Product

A suffix of "-C" specifies halogen free

## FEATURES

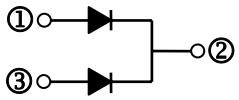
- Low forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

**ITO-220**




## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.98 g (Approximate)




| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 14.60 | 15.70 | H | 2.70 | 3.80 |
| B | 9.50 | 10.50 | J | 0.90 | 1.50 |
| C | 12.60 | 14.00 | K | 0.50 | 0.90 |
| D | 4.30 | 4.70 | L | 2.34 | 2.74 |
| E | 2.30 | 3.2 | M | 2.40 | 3.00 |
| F | 2.30 | 2.80 | N | ϕ3.0 | ϕ3.4 |
| G | 0.30 | 0.70 | | | |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

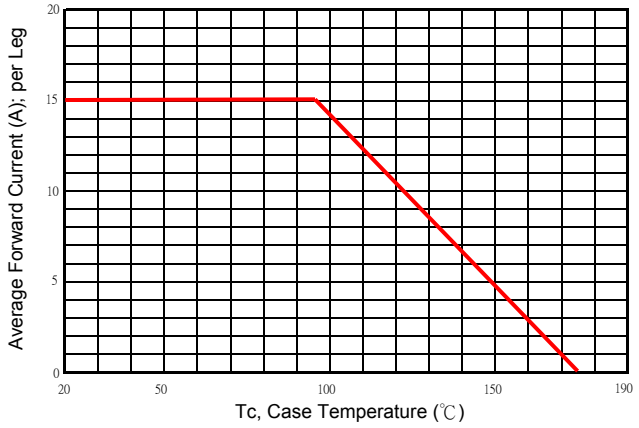
| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | | $V_{RRM}$ | 100 | V |
| Working Peak Reverse Voltage | | $V_{RSM}$ | 100 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 100 | V |
| Maximum Average Forward Rectified Current | (Per Leg) | $I_F$ | 15 | A |
| | (Per Device) | | 30 | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method) | | $I_{FSM}$ | 300 | A |
| Maximum Instantaneous Forward Voltage | ($I_F$ = 15 A, $T_J$ = 25°C, per leg) | $V_F$ | 0.79 | V |
| | ($I_F$ = 15 A, $T_J$ = 125°C, per leg) | | 0.65 | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage [3] | $T_J$=25°C | $I_R$ | 0.1 | mA |
| | $T_J$=100°C | | 1 | |
| Typical Junction Capacitance [1] | | $C_J$ | 520 | pF |
| Typical Thermal Resistance [2] | | $R_{\theta JC}$ | 8.0 | °C /W |
| Voltage Rate of Chance (Rated $V_R$) | | dv/dt | 10000 | V / μs |
| Operating Temperature Range | | $T_J$ | -50 ~ 175 | °C |
| Storage Temperature Range | | $T_{STG}$ | -65 ~ 150 | °C |

NOTES:

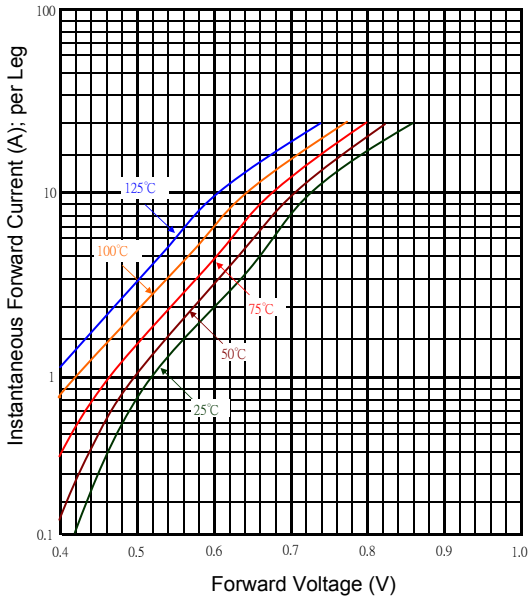
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

## RATINGS AND CHARACTERISTIC CURVES

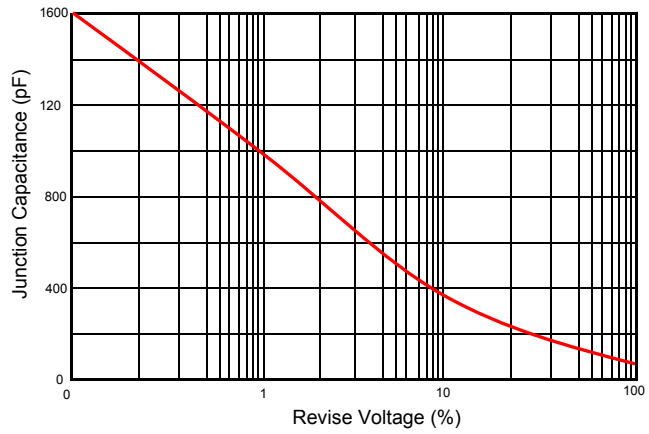
Typical Forward Current Derating Curve



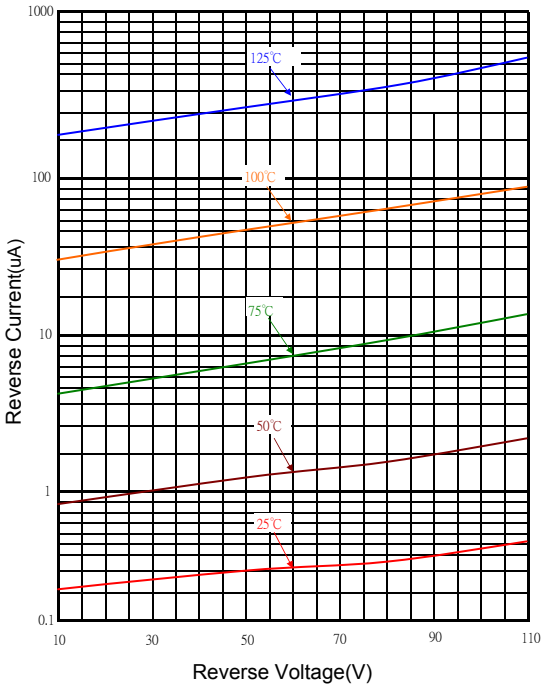

Typical Forward Characteristic




Typical Junction Capacitance




Typical Reverse Characteristic




Maximum Non- Repetitive Forward Surge Current