

RoHS Compliant Product
A suffix of "-C" specifies halogen free

FEATURES

- Planar MOS Schottky technology
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

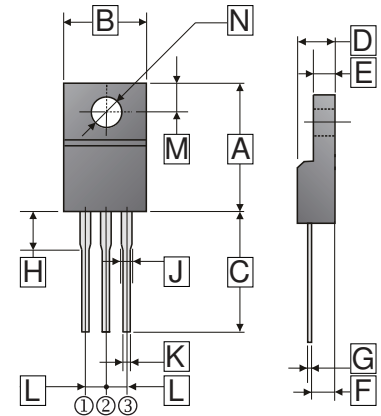
MECHANICAL DATA

- 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)

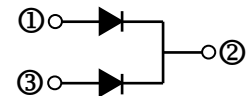
OPDER INFORMATION

| Part Number | Type |
|-------------|---------------------------------|
| SBL30A60F | Lead (Pb)-free |
| SBL30A60F-C | Lead (Pb)-free and Halogen-free |

ITO-220



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|-------|------|------------|-------|
| | Min. | Max. | | Min. | Max. |
| A | 14.60 | 15.70 | H | 2.70 | 4.00 |
| 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 | 2.90 | N | ∅ 3.0 | ∅ 3.4 |
| G | 0.30 | 0.75 | | | |



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} | 60 | V |
| Working Peak Reverse Voltage | V_{RSM} | 60 | V |
| Maximum DC Blocking Voltage | V_{DC} | 60 | V |
| Maximum Average Forward Rectified Current | (Per Leg) | 15 | A |
| | (Per Device) | 30 | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave | I_{FSM} | 180 | A |
| Voltage Rate of Change (Rated V_R) | dv/dt | 10000 | V / μs |
| Typical Thermal Resistance | $R_{\theta JC}$ | 4 | °C / W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -40~150 | °C |

ELECTRICAL CHARACTERISTICS

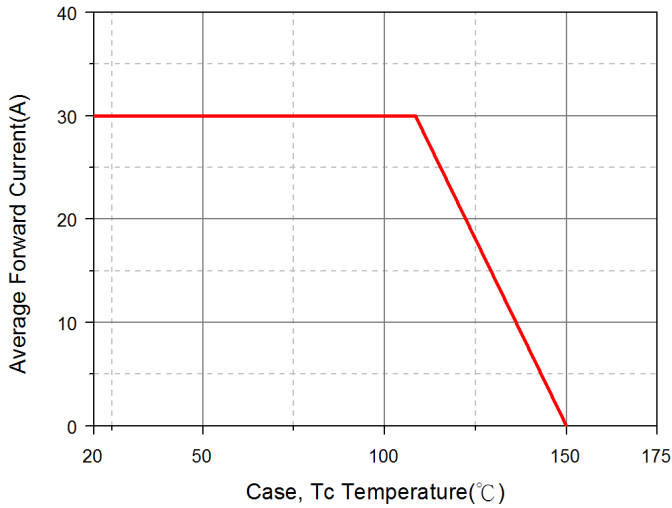
| Parameter | Symbol | Typ. | Max. | Unit | Test Condition |
|--|--------|------|------|------|----------------------------|
| Maximum Instantaneous Forward Voltage | V_F | 0.4 | - | V | $I_F=3A, T_J=25^\circ C$ |
| | | 0.5 | - | | $I_F=10A, T_J=25^\circ C$ |
| | | 0.57 | 0.63 | | $I_F=15A, T_J=25^\circ C$ |
| | | 0.52 | - | | $I_F=15A, T_J=125^\circ C$ |
| Maximum DC Reverse Current at Rated DC Blocking Voltage ² | I_R | - | 0.5 | mA | $T_J=25^\circ C$ |
| | | - | 20 | | $T_J=100^\circ C$ |
| Typical Junction Capacitance ¹ | C_J | 650 | - | pF | |

Notes:

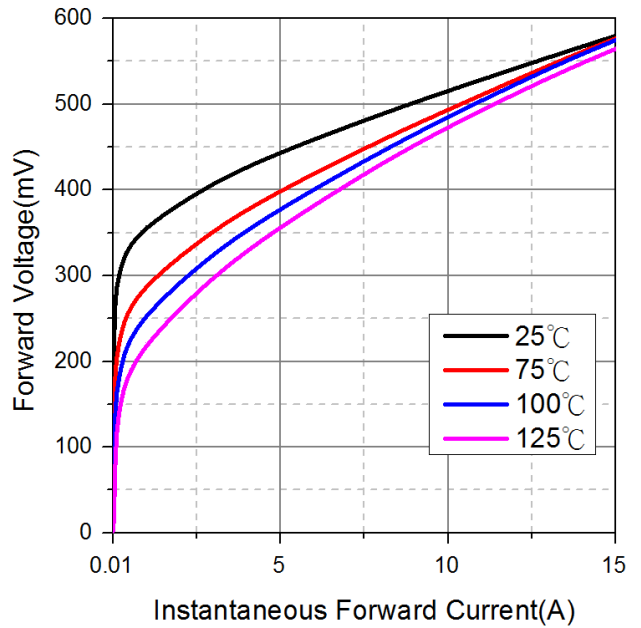
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Pulse Test : Pulse Width = 300 μs , Duty Cycle \leq 2.0%.

RATING AND CHARACTERISTIC CURVES

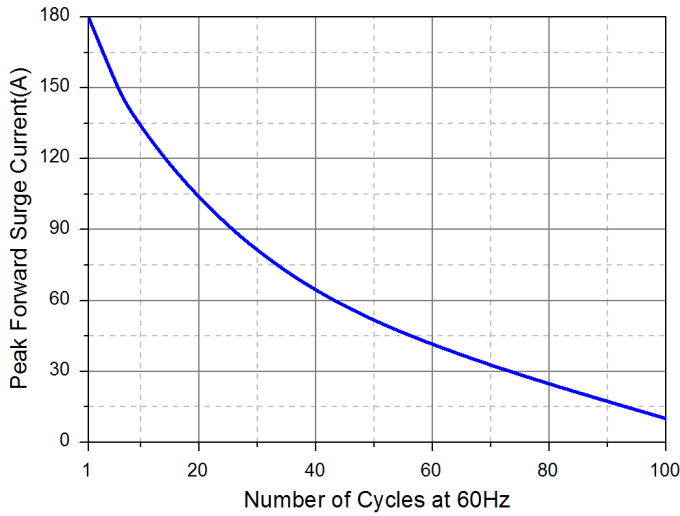
Typical Forward Current Derating Curve



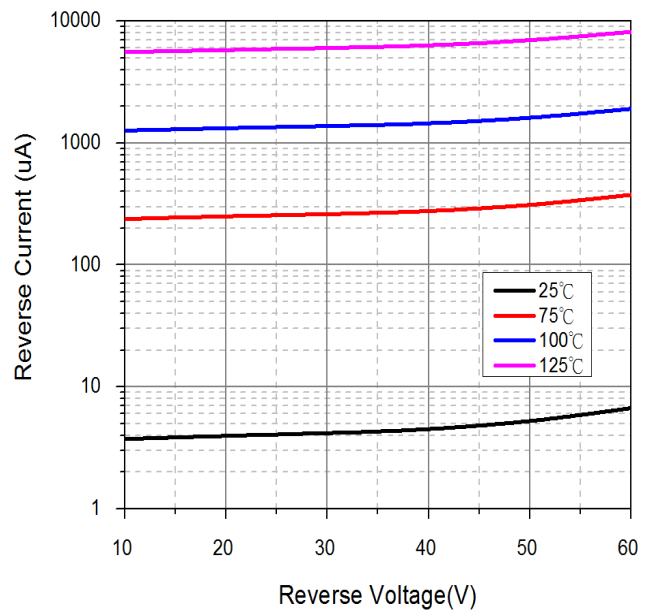
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

