Elektronische Bauelemente

# SFL1060

**Voltage 600V**

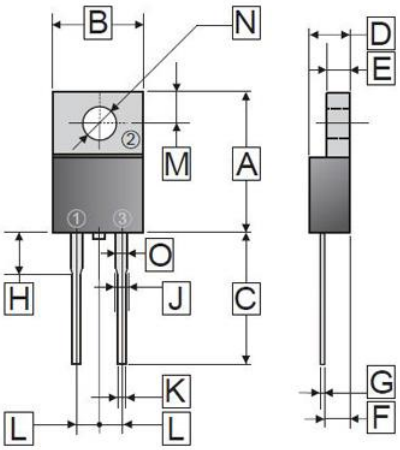
**10.0 Amp Low Loss Ultrafast Rectifier**

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

## FEATURES

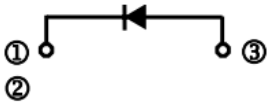
- Soft Reverse Recovery Diodes
- 150°C Operating Junction Temperature
- Fast Switching for High Efficiency
- Low Forward Voltage, High Current Capability
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

**TO-220A**




## ORDER INFORMATION

| Part Number | Type |
|---|---|
| SFL1060 | Lead (Pb)-free |
| SFL1060-C | Lead (Pb)-free and Halogen-free |




| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 14.68 | 15.50 | H | 3.57 | 4.20 |
| B | 9.7 | 10.4 | J | - | 1.30 |
| C | 13.06 | 14.62 | K | 0.72 | 0.96 |
| D | 4.22 | 4.98 | L | 4.84 | 5.32 |
| E | 1.14 | 1.38 | M | 2.48 | 2.98 |
| F | 2.20 | 2.98 | N | ϕ3.7 | ϕ3.9 |
| G | 0.27 | 0.55 | O | 1.12 | 1.37 |

## 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 |
|---|---|---|---|---|
| Peak Repetitive Reverse Voltage | | $V_{RRM}$ | 600 | V |
| Working Peak Reverse Voltage | | $V_{RWM}$ | 600 | V |
| DC Blocking Voltage | | $V_R$ | 600 | V |
| Average Rectifier Forward Current | | $I_{F(AV)}$ | 10 | A |
| Non-Repetitive Peak Surge Current @Surge applied at rate load conditions half-wave, single phase, 60Hz | | $I_{FSM}$ | 100 | A |
| Max. Instantaneous Forward Voltage @$I_F$=10A | $T_A$=25°C | $V_F$ | 1.35 | V |
| | $T_A$=125°C | | 1.25 | |
| Max. Instantaneous Reverse Current [2] | $T_A$=25°C | $I_R$ | 0.1 | mA |
| | $T_A$=125°C | | 1 | |
| Reverse Recovery Time [3] | | $T_{RR}$ | 150 | nS |
| Typical Junction Capacitance [1] | | $C_J$ | 33 | pF |
| Thermal Resistance | | $R_{\theta JC}$ | 4 | °C/W |
| Operating Junction and Storage Temperature Range | | $T_J$, $T_{STG}$ | 150, -55~150 | °C |

Notes:

1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle≦2%.
3. $I_F$=0.5A, $I_R$ =1A, $I_{RR}$=0.25A.

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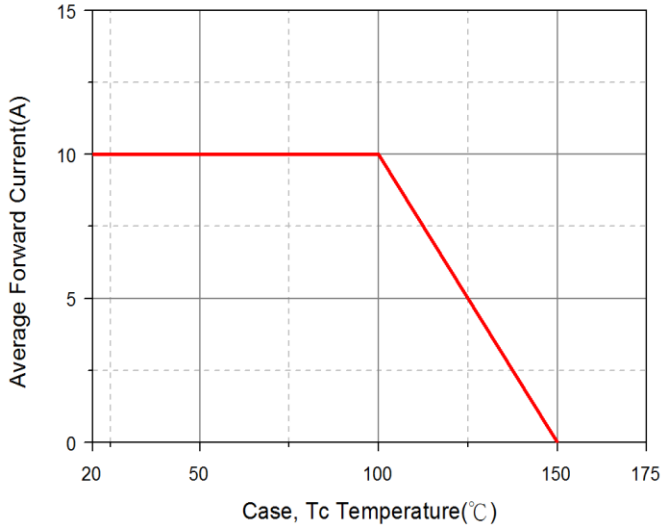
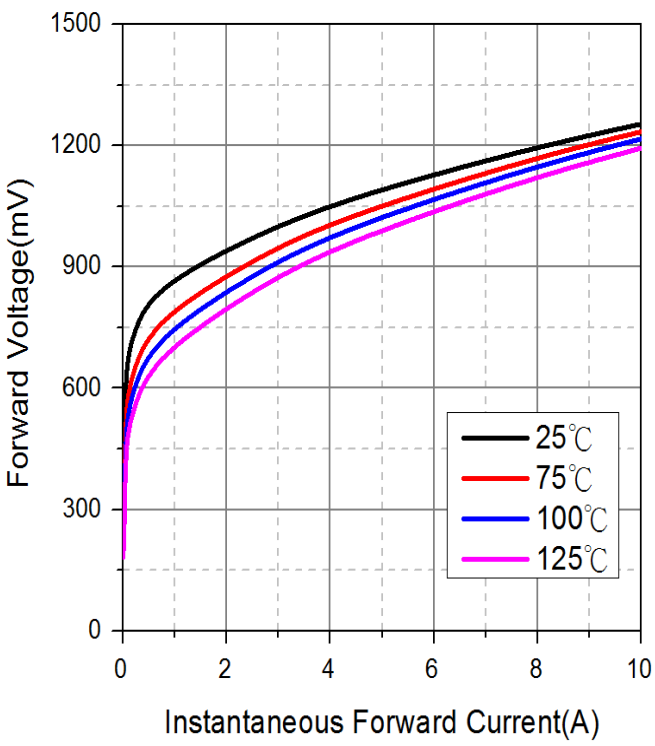
## RATINGS AND CHARACTERISTIC CURVES

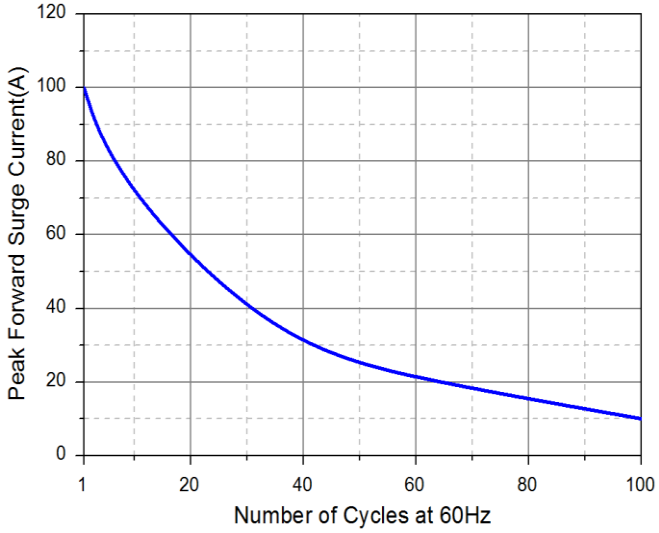
Typical Forward Current Derating Curve



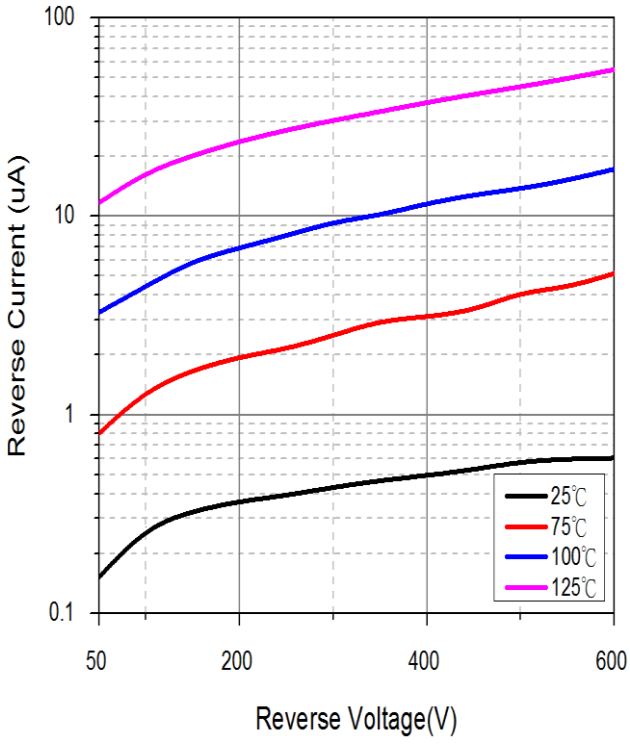

Typical Forward Characteristic




Maximum Non-Repetitive Forward Surge Current




Typical Reverse Characteristic




Typical Junction Capacitance