

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

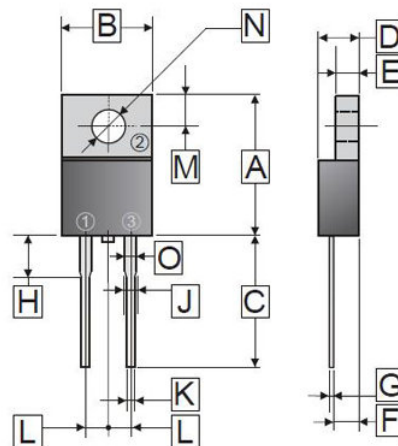
## FEATURES

- Soft Reverse Recovery Diodes
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- Low Forward Voltage, High Current Capability
- Low Stored Charge Majority Carrier Conduction
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

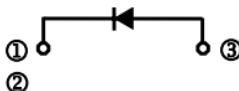
## ORDER INFORMATION

| Part Number | Type                            |
|-------------|---------------------------------|
| SFL0560     | Lead (Pb)-free                  |
| SFL0560-C   | Lead (Pb)-free and Halogen-free |

## TO-220A



| 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    | φ 3.7      | φ 3.9 |
| 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%.)

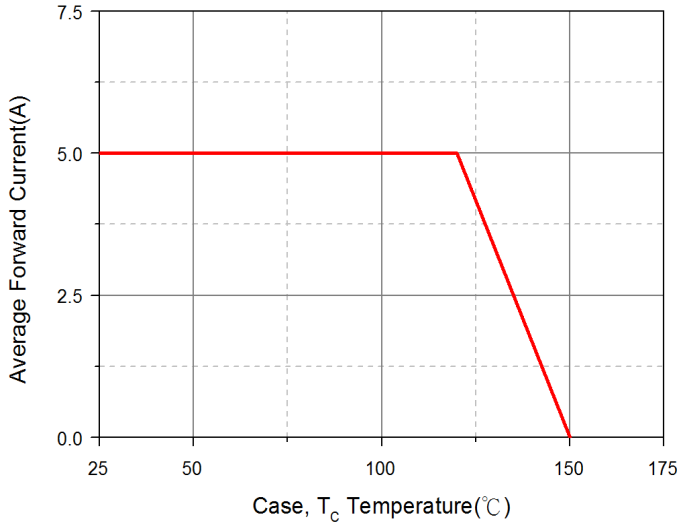
| Characteristics   | Symbol            | Rating       | Units |
|---|-------------------|--------------|-------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$         | 600          | V     |
| Working Peak Reverse Voltage  | $V_{RWM}$         | 600          | V     |
| DC Blocking Voltage   | $V_R$             | 600          | V     |
| Average Rectifier Forward Current   | $I_{F(AV)}$       | 5            | A     |
| Non-Repetitive Peak Surge Current @ Surge applied at rate load conditions half-wave, single phase, 60Hz | $I_{FSM}$         | 50           | A     |
| Max. Instantaneous Forward Voltage @ $I_F=5A$   | $T_J=25^\circ C$  | 1.35         | V     |
|   | $T_J=125^\circ C$ | 1.3          |       |
| Max. Instantaneous Reverse Current <sup>1</sup>   | $T_J=25^\circ C$  | 0.1          | mA    |
|   | $T_J=125^\circ C$ | 1            |       |
| Max. Reverse Recovery Time <sup>2</sup>   | $T_{RR}$          | 100          | nS    |
| Typical Junction Capacitance <sup>3</sup>   | $C_J$             | 14           | pF    |
| Typical Thermal Resistance  | $R_{\theta JC}$   | 2            | °C/W  |
| Operating Junction and Storage Temperature Range  | $T_J, T_{STG}$    | 150, -55~150 | °C    |

Notes:

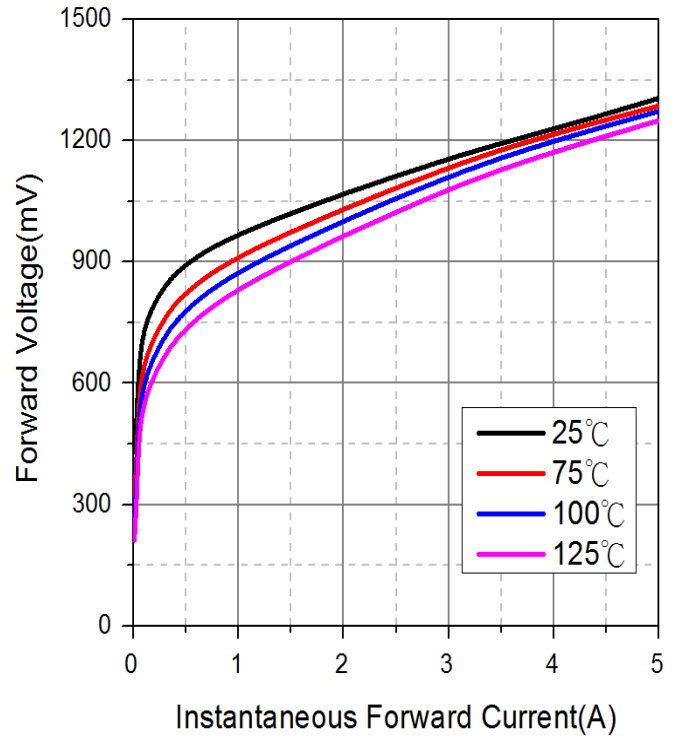
1. Pulse Test: Pulse Width=300µs, Duty Cycle≤2%.
2.  $I_F=0.5A, I_R=1A, I_{RR}=0.25A$ .
3. Measured at 1MHz and applied reverse voltage of 5V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

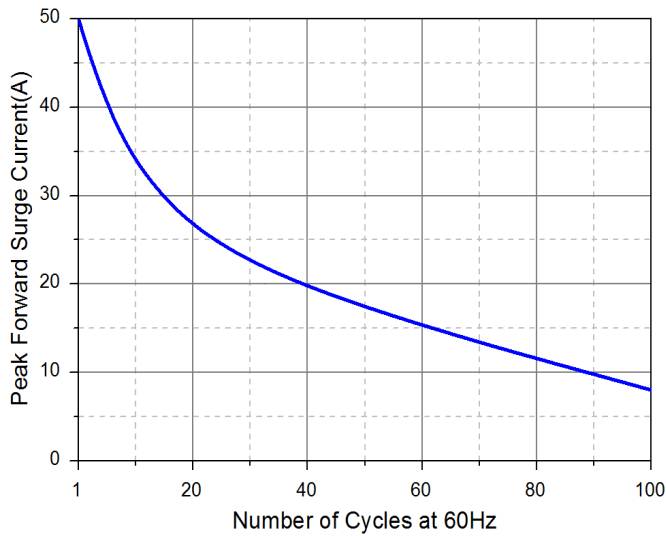
Typical Forward Current Derating Curve



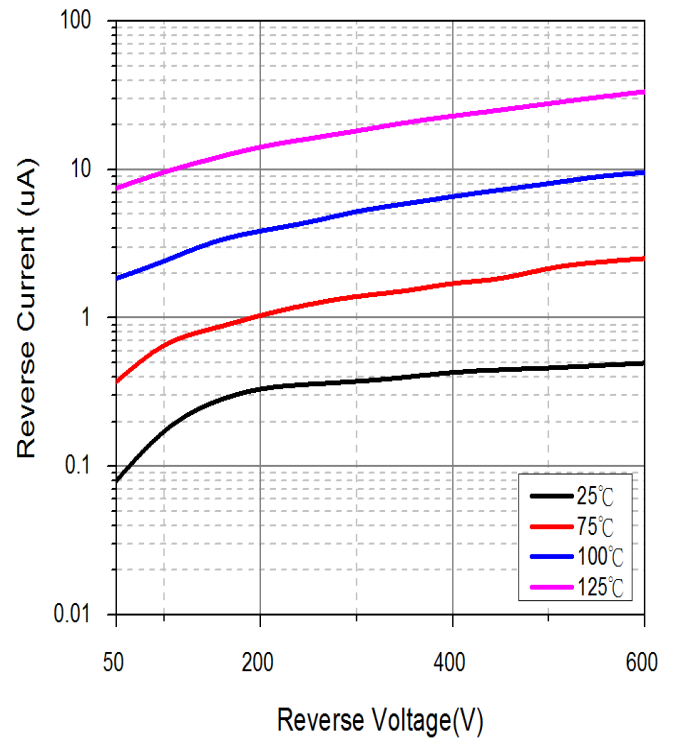
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

