

Surface Mount Schottky Barrier Rectifier  
Reverse Voltage - 30 to 60V  
Forward Current - 2.0A

### Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

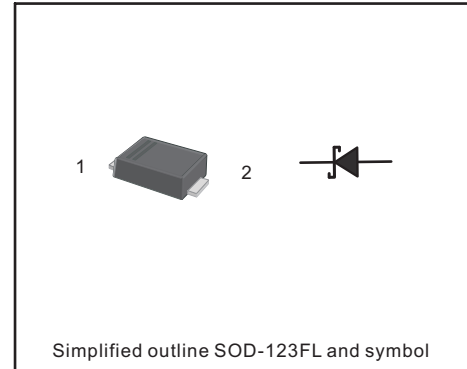
- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

### Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



| Parameter   | Symbols         | RB060M-30G | RB060M-40G | RB060M-60G | Units         |
|---|-----------------|------------|------------|------------|---------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 30         | 40         | 60         | V             |
| Maximum RMS voltage   | $V_{RMS}$       | 28         | 28         | 42         | V             |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 30         | 40         | 60         | V             |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$     | 2.0        |            |            | A             |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$       | 50         |            |            | A             |
| Max Instantaneous Forward Voltage at 2A   | $V_F$           | 0.55       |            | 0.70       | V             |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$   | $I_R$           | 0.5<br>5   |            |            | mA            |
| Typical Junction Capacitance <sup>1)</sup>  | $C_j$           | 220        | 80         |            | pF            |
| Typical Thermal Resistance <sup>2)</sup>  | $R_{\theta JA}$ | 80         |            |            | $^{\circ}C/W$ |
| Operating Junction Temperature Range  | $T_j$           | -55 ~ +125 |            |            | $^{\circ}C$   |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |            |            | $^{\circ}C$   |

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

Fig.1 Forward Current Derating Curve

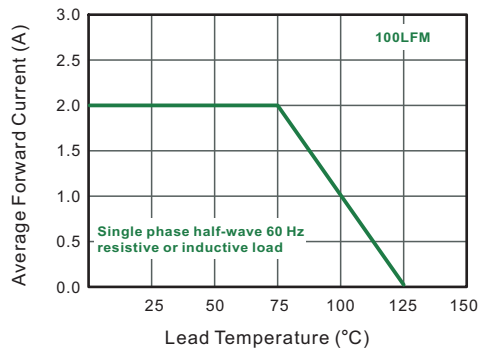


Fig.2 Typical Reverse Characteristics

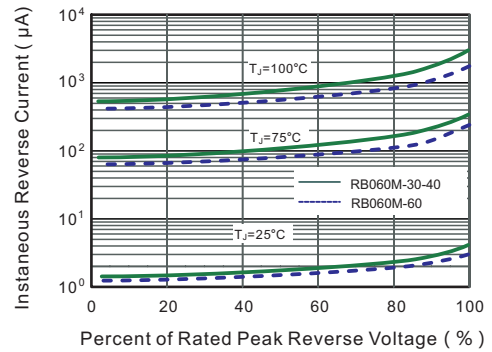


Fig.3 Typical Forward Characteristic

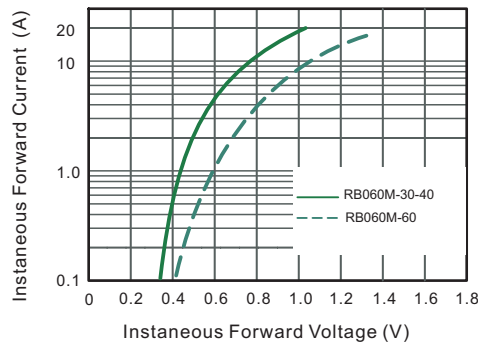


Fig.4 Typical Junction Capacitance

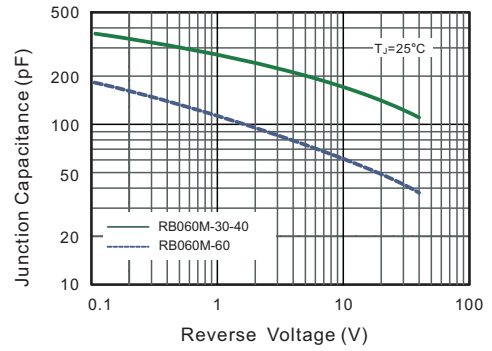


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

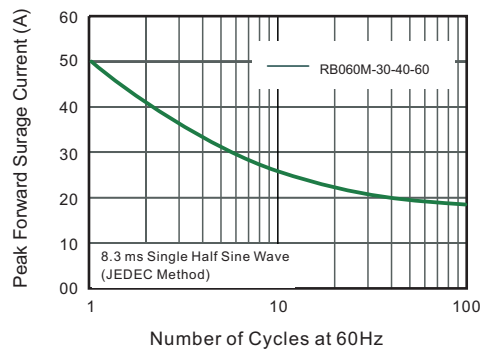
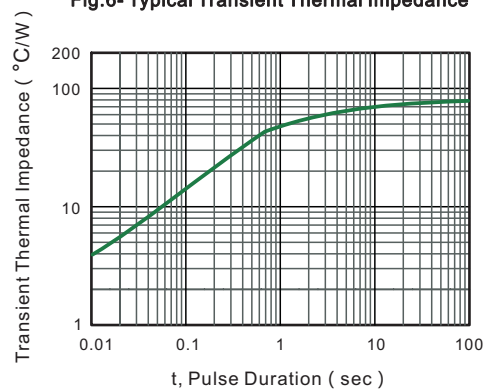


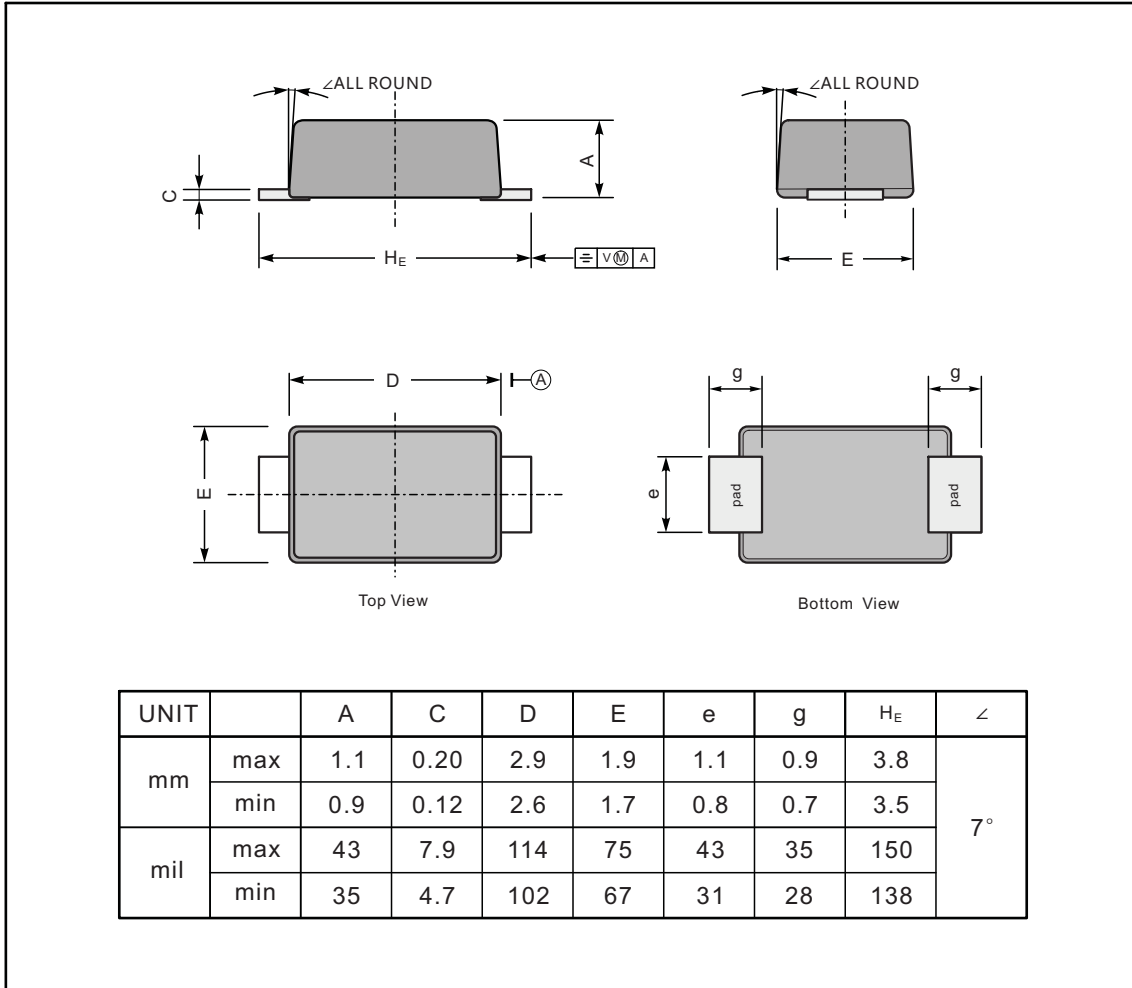
Fig.6- Typical Transient Thermal Impedance



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



### The recommended mounting pad size

