

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

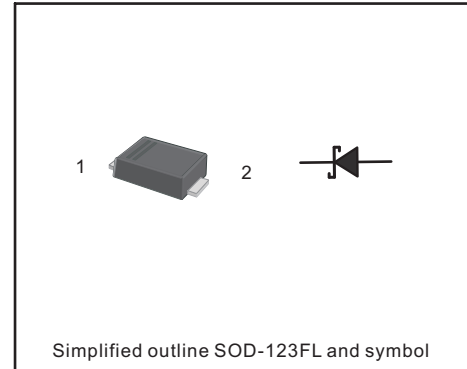
- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

### 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-30	RB060M-40	RB060M-60	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 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

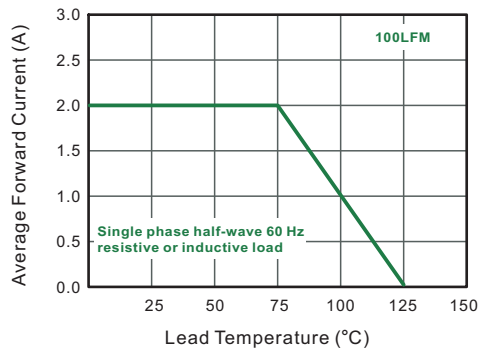


Fig.2 Typical Reverse Characteristics

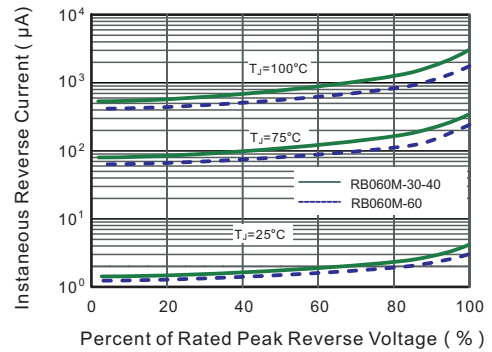


Fig.3 Typical Forward Characteristic

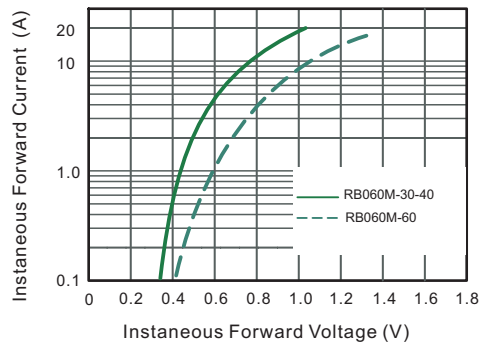


Fig.4 Typical Junction Capacitance

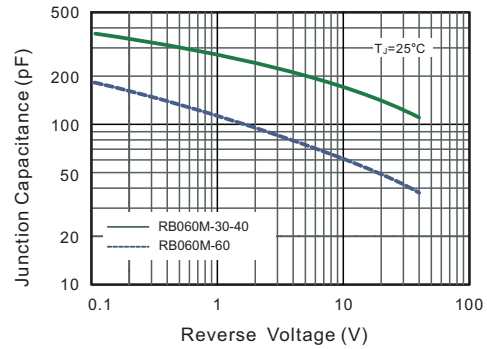


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

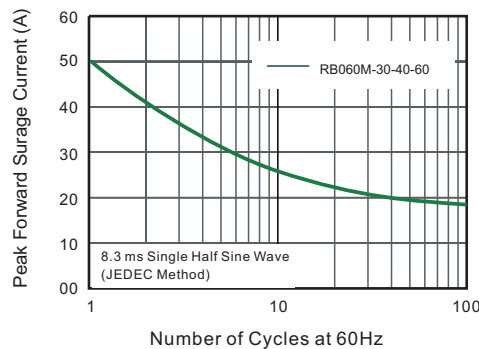
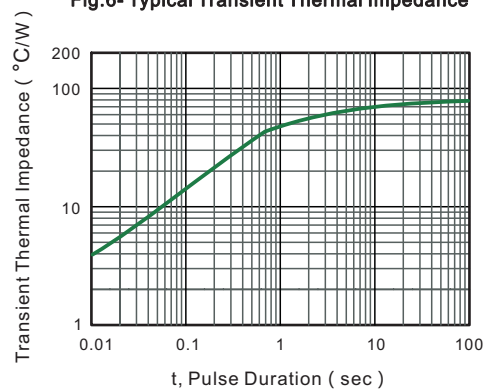


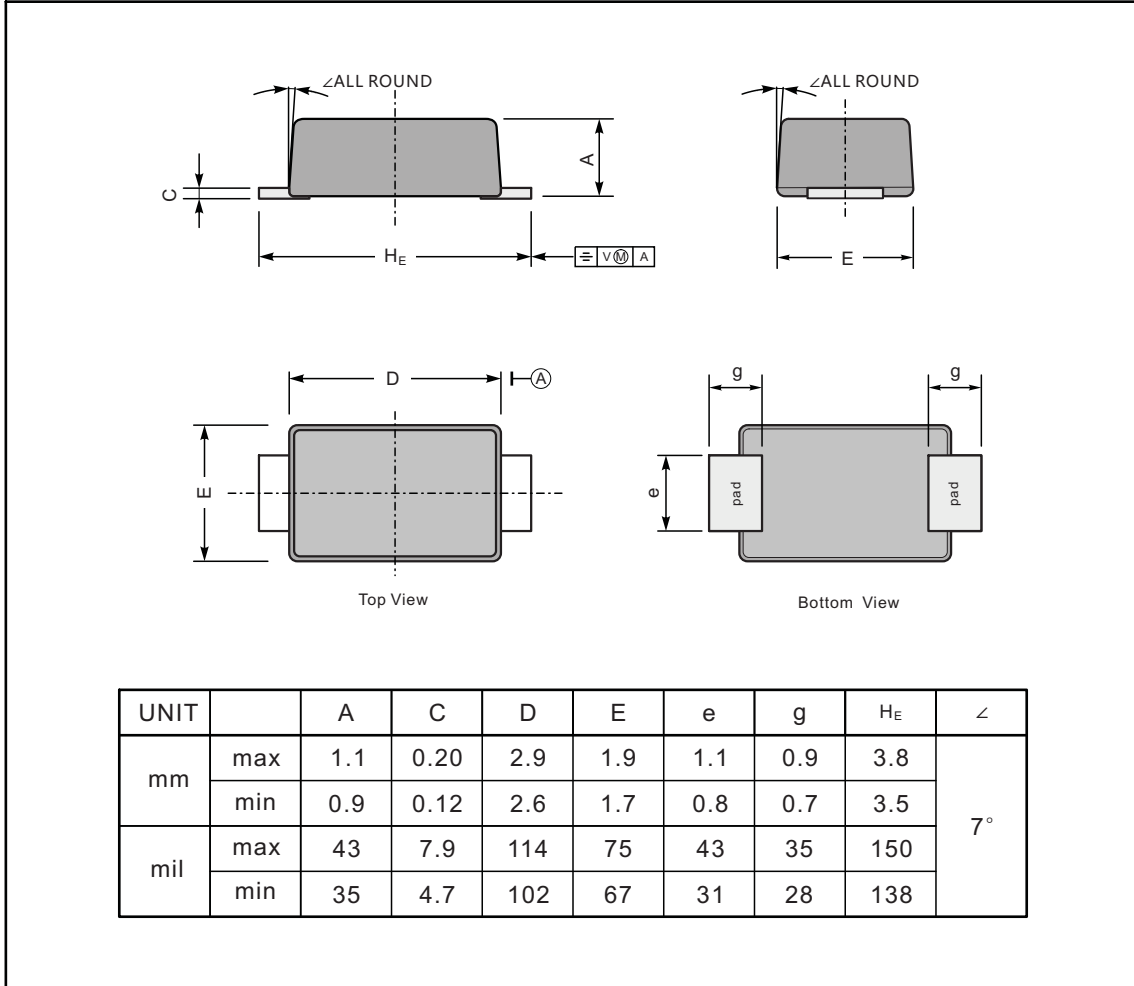
Fig.6- Typical Transient Thermal Impedance



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



### The recommended mounting pad size

