

**Features**

- ◆ Low profile surface mount package
- ◆ Glass Passivated Chip Junction
- ◆ High temperature soldering 250°C/10second at terminals
- ◆ RoHS Compliant
- ◆ Halogen & Lead Free


**SOD-123FL**

**特征**

- ◆ 薄型表面贴装封装
- ◆ 玻璃钝化芯片结
- ◆ 端子高温焊接 250°C/10 秒
- ◆ 符合 RoHS 标准
- ◆ 无卤无铅

| Device Type<br>器件型号 | Device Marking<br>器件印字 |
|---------------------|------------------------|
| SM4007PL-CN         | A7                     |

**MECHANICAL DATA 器件数据**

- ◆ Case: SOD-123FL 壳体 : SOD-123FL
- ◆ Terminals: Solderable Per MIL-STD-750, Method 2026  
接触端: 可根据 MIL-STD-750, 方法 2026 进行焊接

**Application 应用**

- ◆ General purpose rectification of power supplies 电源通用整流
- ◆ Inverters 逆变器
- ◆ Converters 转换器
- ◆ Freewheeling diodes for consumer and telecommunication  
消费类产品和电通信用续流二极管

**ORDERING INFORMATION  
订购信息**

| Device Type<br>器件型号 | Package<br>封装 | Reel Size<br>卷盘尺寸 | SPQ<br>标准包装量 | MPQ<br>最小包装数量 | MOQ<br>最小订购数量   |
|---------------------|---------------|-------------------|--------------|---------------|-----------------|
| SM4007PL-CN         | SOD-123FL     | 7 Inch 英寸         | 3000/Reel 卷  | 45000/Box 盒   | 180000/Carton 箱 |

**Maximum Ratings** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

**最大额定值**(如无另外标识, 环境温度=25°C)

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

单相半波 60 Hz, 电阻或电感负载, 电容负载电流减额 20%

| Parameter<br>参数   | Symbol<br>符号    | Note                        | SM4007PL-CN | Unit<br>单位                |
|---|-----------------|-----------------------------|-------------|---------------------------|
| Maximum repetitive peak reverse voltage<br>最大重复峰值反向电压                                   | $V_{RRM}$       | /                           | 1000        | V                         |
| Maximum RMS Voltage<br>最大反向有效电压   | $V_{RMS}$       | /                           | 700         | V                         |
| Maximum DC Blocking Voltage<br>最大直流截止电压   | $V_{DC}$        | /                           | 1000        | V                         |
| Maximum Average Forward Rectified Current<br>最大正向平均整流电流                                 | $I_{(AV)}$      | $T_L = 100^\circ\text{C}$   | 1.0         | A                         |
| Peak Forward Surge Current<br>峰值正向浪涌电流  | $I_{FSM}$       | 8.3ms single half sine-wave | 35          | A                         |
| Typical Junction Capacitance<br>典型结电容   | $C_j$           | 1MHz<br>$V_{DC} = 4.0$      | 18          | pF                        |
| Maximum Instantaneous Forward Voltage @1.0A<br>最大瞬时正向电压 @1.0A                           | $V_F$           | /                           | 1.1         | V                         |
| Maximum DC Reverse Current rated DC Blocking Voltage per element<br>在额定直流截止电压下的最大直流反向电流 | $I_R$           | $T_A = 25^\circ\text{C}$    | 5.0         | $\mu\text{A}$             |
|   |                 | $T_A = 125^\circ\text{C}$   | 500         |                           |
| Operating Junction Temperature<br>工作结点温度  | $T_J$           | /                           | -55 to +150 | $^\circ\text{C}$          |
| Storage Temperature Range<br>储存温度范围   | $T_{STG}$       | /                           | -55 to +150 | $^\circ\text{C}$          |
| Typical Thermal Resistance<br>典型热阻  | $R_{\theta JA}$ | /                           | 85          | $^\circ\text{C}/\text{W}$ |

# Characteristic Diagram

## 特性图

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

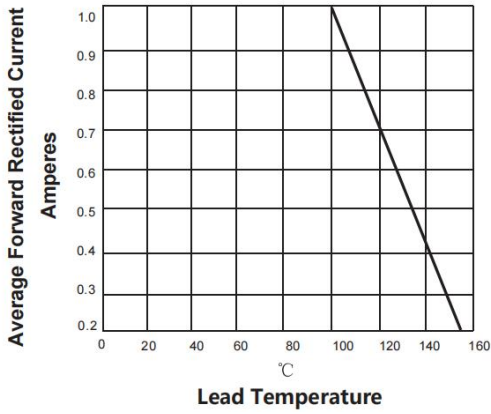


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

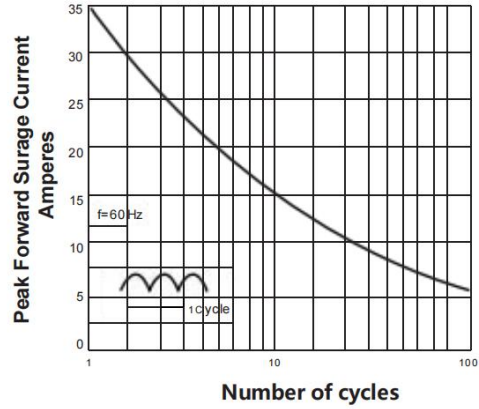


FIG. 3 - TYPICAL FORWARD VOLTAGE CHARACTERISTICS

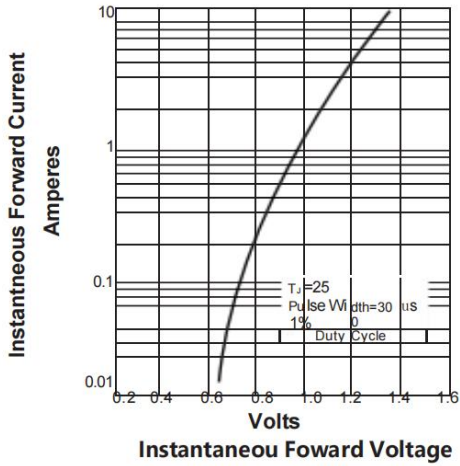
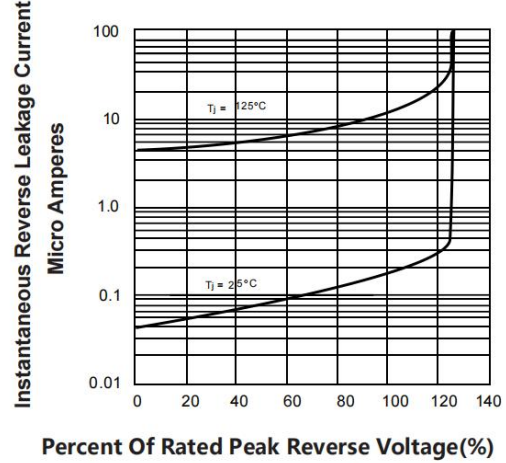
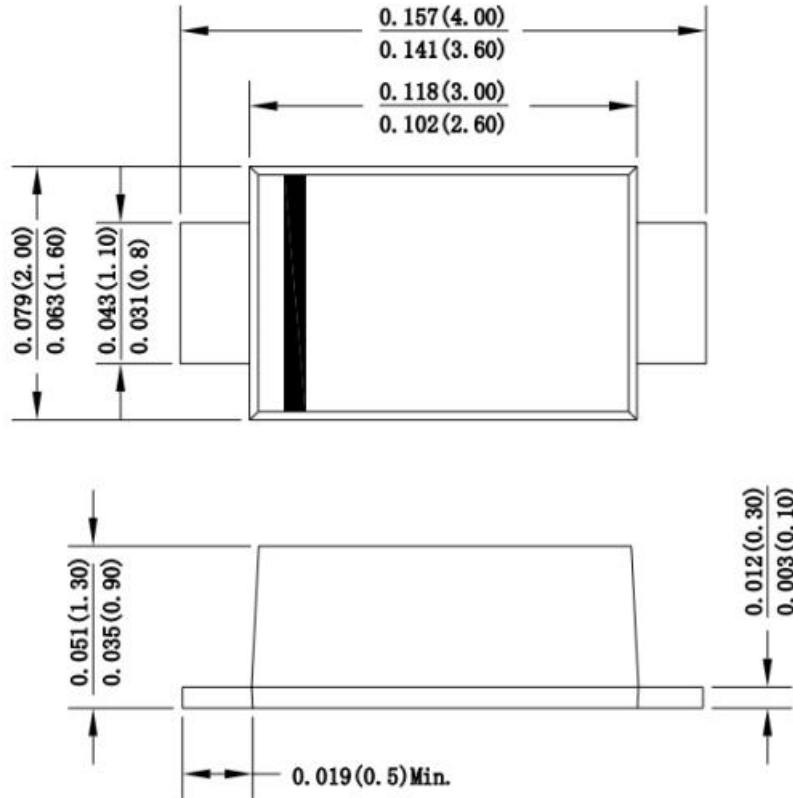


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS



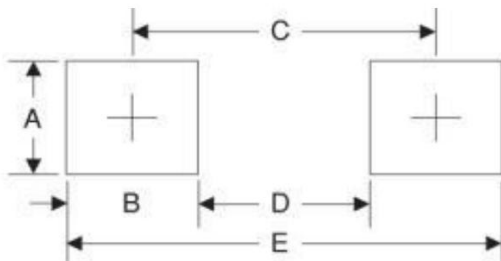
**Package 封装信息**

**SOD-123FL**



**Suggested Pad Layout**

**焊盘布局参考**



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 1.2       | 0.048       |
| B      | 1.15      | 0.045       |
| C      | 3.10      | 0.122       |
| D      | 1.95      | 0.077       |
| E      | 4.25      | 0.167       |

## NOTICE

The information presented in this document is for reference only. Involving product optimization and productivity improvement, ChipNobo reserves the right to adjust product indicators and upgrade some technical parameters. ChipNobo is entitled to be exempted from liability for any delay or non-delivery of the information disclosure process that occurs.

本文件中提供的信息仅供参考。涉及产品优化和生产效率改善，ChipNobo 有权调整产品指标和部分技术参数的升级，所出现信息披露过程存在延后或者不能送达的情形，ChipNobo 有获免责权。

The product listed herein is designed to be used with residential and commercial equipment, and do not support sensitive items and specialized equipment in areas where sanctions do exist. ChipNobo Co., Ltd or anyone on its behalf, assumes no responsibility or liability for any damages resulting from improper use.

此处列出的产品旨在民用和商业设备上使用，不支持确有制裁地区的敏感项目和特殊设备，ChipNobo 有限公司或其代表，对因不当使用而造成的任何损害不承担任何责任。

For additional information, please visit our website <http://www.chipnobo.com>, or consult your nearest Chipnobo sales office for further assistance.

欲了解更多信息，请访问我们的网站 <http://www.chipnobo.com>，或咨询离您最近的 Chipnobo 销售办事处以获得进一步帮助。