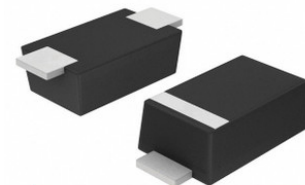


## Surface Mount General Purpose Silicon Rectifier in SOD-123FL

### Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- Meet MSL level 1



### Mechanical Data

- **Case:** JEDEC SOD-123FL molded plastic  
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals



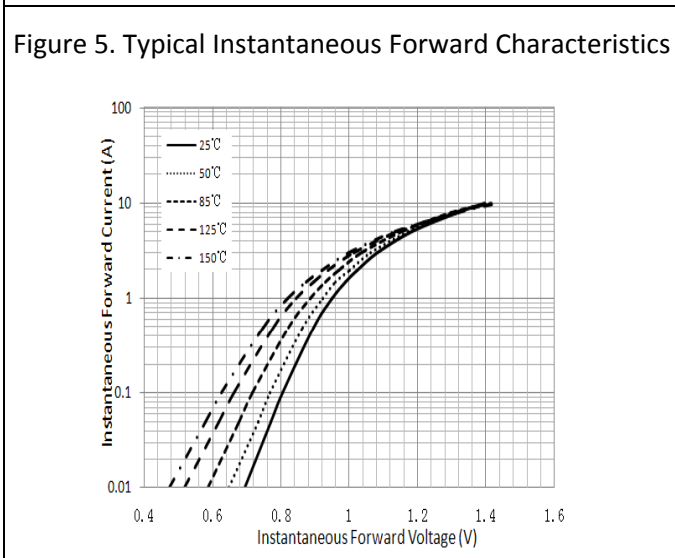
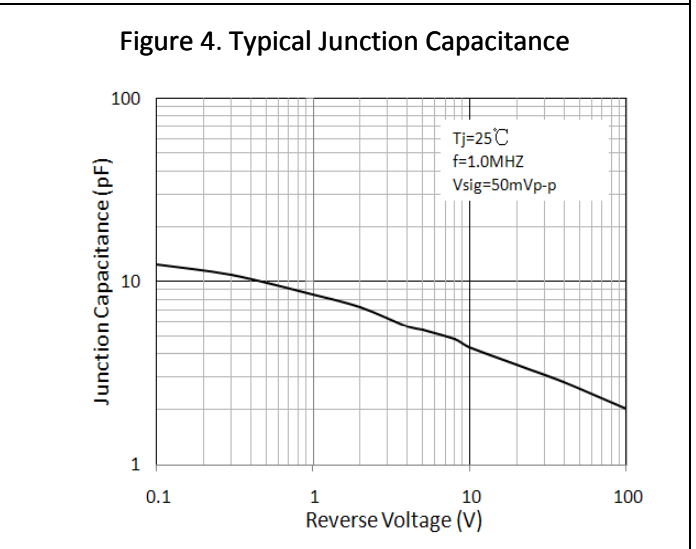
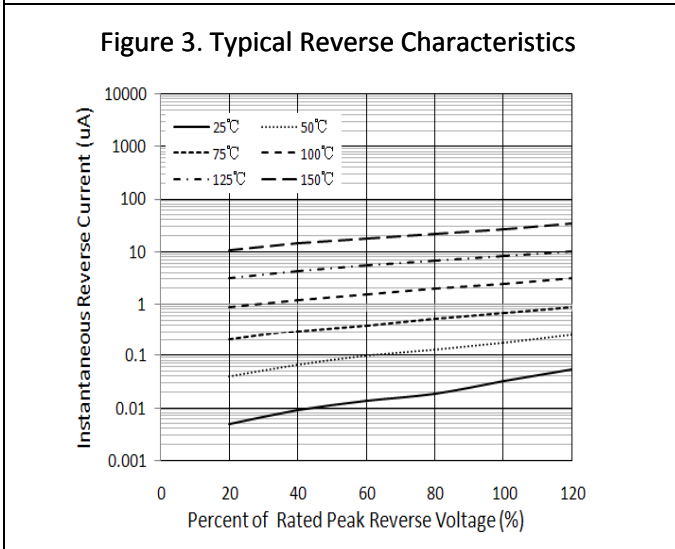
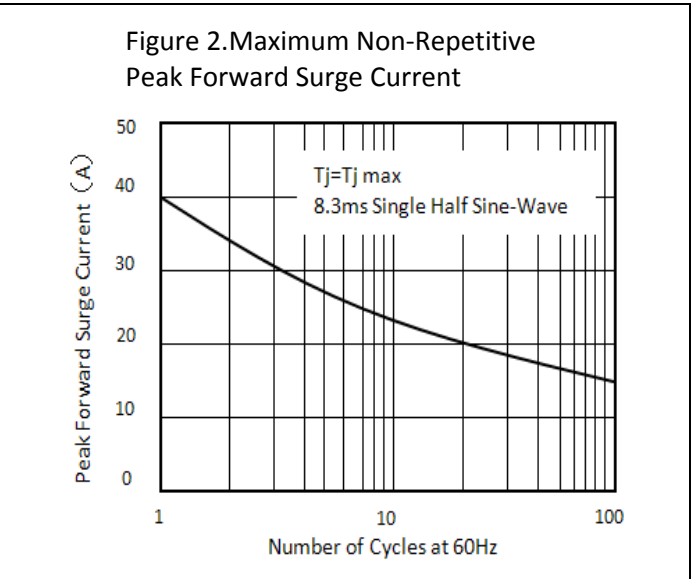
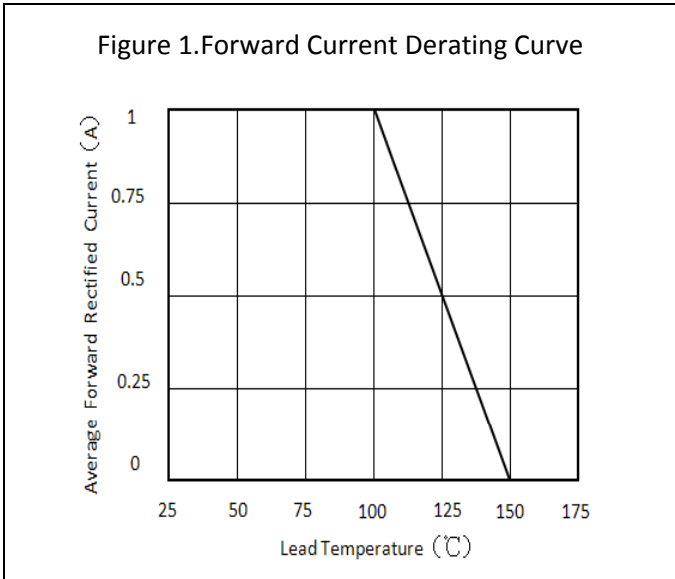
### Maximum Ratings And Electrical Characteristics

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

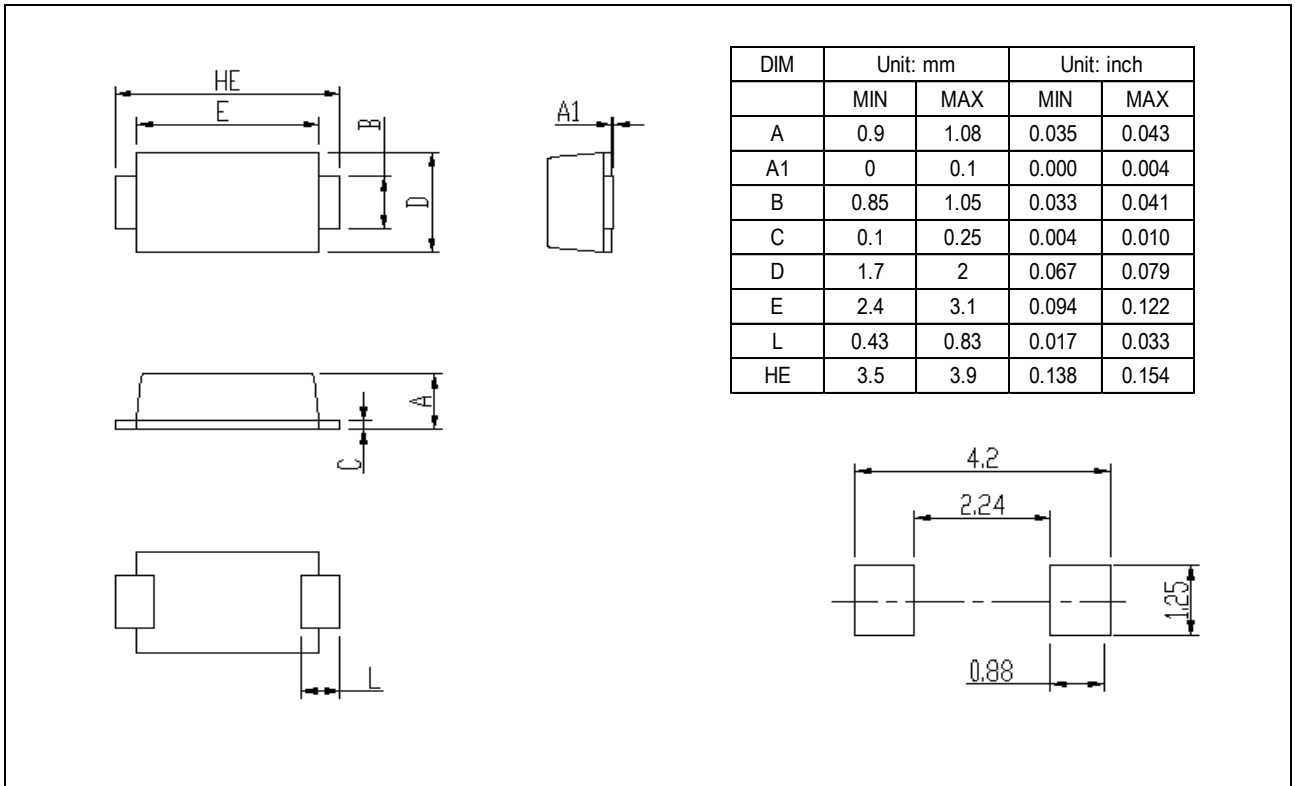
| Parameter  | Symbols         | A1          | A2  | A3  | A4  | A5  | A6  | A7   | Units        |
|--|-----------------|-------------|-----|-----|-----|-----|-----|------|--------------|
| Maximum repetitive peak reverse voltage  | $V_{RRM}$       | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V            |
| Maximum RMS voltage  | $V_{RMS}$       | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V            |
| Maximum DC blocking voltage  | $V_{DC}$        | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V            |
| Maximum average forward rectified current (See Fig.1)  | $I_{(AV)}$      | 1.0         |     |     |     |     |     |      | A            |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)   | $I_{FSM}$       | 40          |     |     |     |     |     |      | A            |
| Maximum instantaneous forward voltage @ 1.0A DC  | $V_F$           | 1.0         |     |     |     |     |     |      | V            |
| Maximum DC reverse current @ $T_J = 25^\circ C$ at rated DC blocking voltage @ $T_J = 125^\circ C$ | $I_R$           | 5.0<br>50.0 |     |     |     |     |     |      | $\mu A$      |
| Typical reverse recovery time<br>$I_F = 0.5A,$<br>$I_R = 1.0A,$<br>$I_{rr} = 0.25A$                | $t_{rr}$        | 1.8         |     |     |     |     |     |      | $\mu S$      |
| Typical junction capacitance   | $C_J$           | 6           |     |     |     |     |     |      | pF           |
| Typical thermal resistance(note 1)   | $R_{\theta JA}$ | 70          |     |     |     |     |     |      | $^\circ C/W$ |
|  | $R_{\theta JC}$ | 40          |     |     |     |     |     |      |              |
|  | $R_{\theta JM}$ | 5           |     |     |     |     |     |      |              |
| Operating junction temperature range   | $T_J$           | -55 to +150 |     |     |     |     |     |      | $^\circ C$   |
| Storage temperature range  | $T_{STG}$       | -55 to +150 |     |     |     |     |     |      | $^\circ C$   |

Note 1: The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB.

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



**Package Dimensions**



**Ordering information**

| Order code | Package   | Packaging option | Base quantity  | Packaging specification |
|------------|-----------|------------------|----------------|-------------------------|
| A1 thru A7 | SOD-123FL | Tape and reel    | 3000pcs / reel | EIA STD RS-481          |

**Revision history**

| Date       | Revision | Changes            |
|------------|----------|--------------------|
| 1-Aug-2025 | 3.1      | Increase MSL level |

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