

# HSL285

## Silicon Schottky Barrier Diode for Detector

REJ03G0527-0200  
Rev.2.00  
May 17, 2006

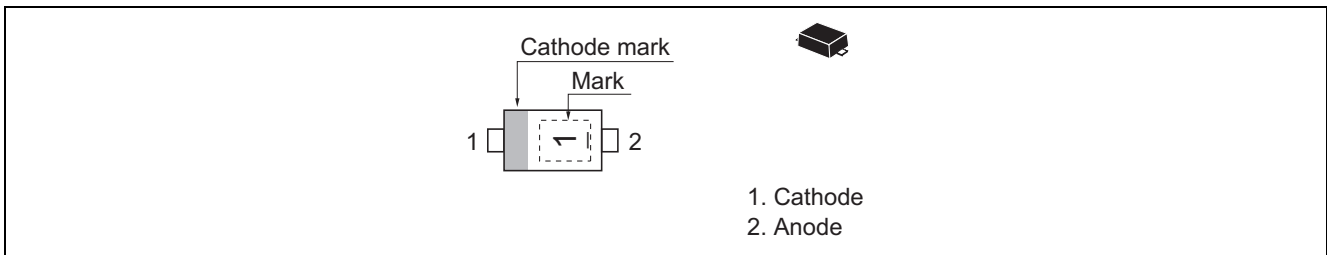
### Features

- Low forward voltage, Low capacitance and High detection sensitivity.
- Extremely small Flat Lead Package (EFP) is suitable for surface mount design.

### Ordering Information

| Type No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| HSL285   | 1          | EFP          | PXSF0002ZA-A |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                      | Symbol           | Value       | Unit |
|---------------------------|------------------|-------------|------|
| Reverse voltage           | V <sub>R</sub>   | 2           | V    |
| Average rectified current | I <sub>O</sub>   | 5           | mA   |
| Junction temperature      | T <sub>j</sub>   | 125         | °C   |
| Storage temperature       | T <sub>stg</sub> | -55 to +125 | °C   |

## Electrical Characteristics

(Ta = 25°C)

| Item              | Symbol          | Min | Typ | Max  | Unit | Test Condition  |
|-------------------|-----------------|-----|-----|------|------|---|
| Forward voltage   | V <sub>F1</sub> | —   | —   | 0.15 | V    | I <sub>F</sub> = 0.1 mA   |
|                   | V <sub>F2</sub> | —   | —   | 0.27 |      | I <sub>F</sub> = 1 mA   |
| Capacitance       | C               | —   | 0.3 | —    | pF   | V <sub>R</sub> = 0.5 V, f = 1 MHz   |
| ESD-Capability *1 | —               | 10  | —   | —    | V    | C = 200 pF, R <sub>L</sub> = 0 Ω, Both forward and reverse direction 1 pulse. |

Notes: 1. Failure criterion ; I<sub>R</sub> ≥ 100 μA at V<sub>R</sub> = 0.5 V

2. For EFP package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic

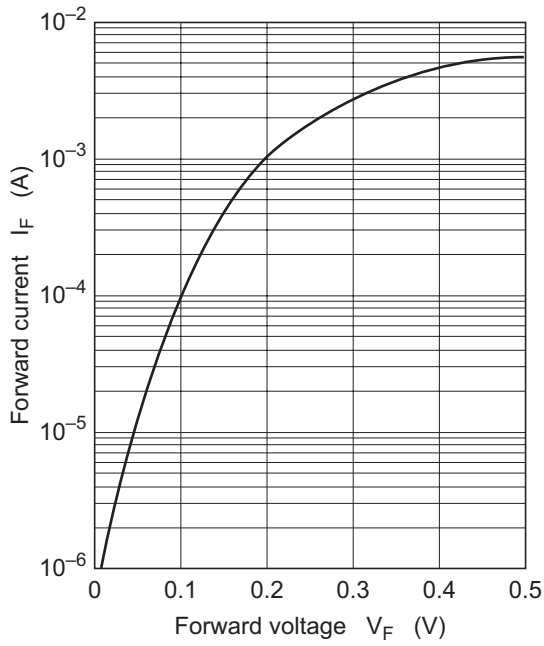


Fig.1 Forward current vs. Forward voltage

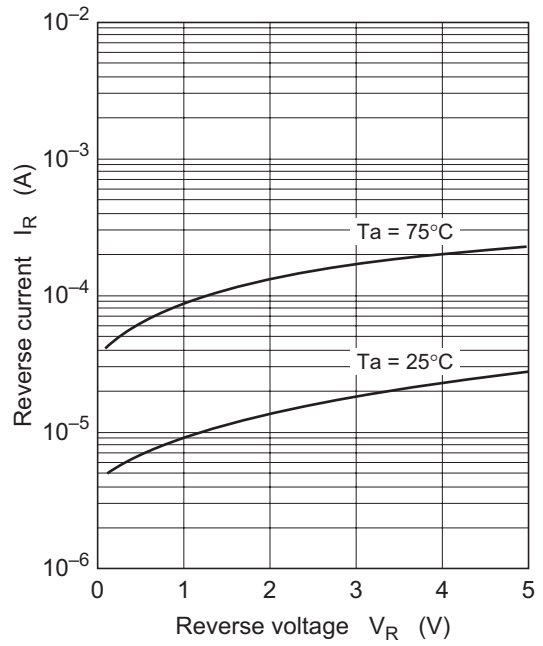


Fig.2 Reverse current vs. Reverse voltage

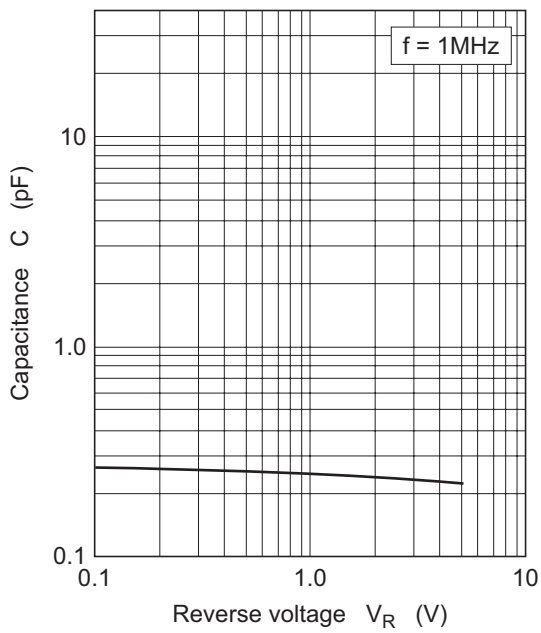
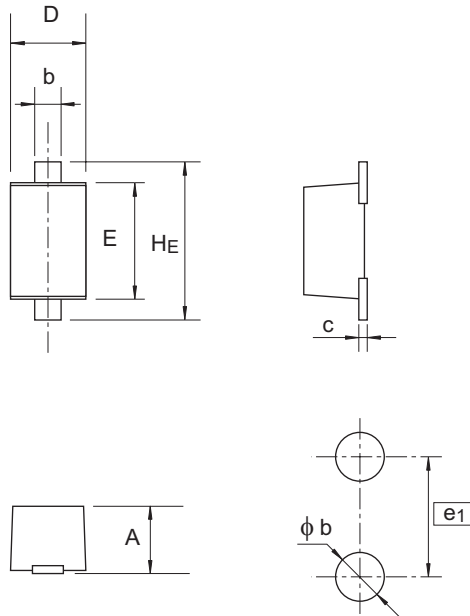


Fig.3 Capacitance vs. Reverse voltage

## Package Dimensions

|              |                    |              |               |            |
|--------------|--------------------|--------------|---------------|------------|
| Package Name | JEITA Package Code | RENESAS Code | Previous Code | MASS[Typ.] |
| EFP          | —                  | PXSF0002ZA-A | EFP / EFPV    | 0.0007g    |



Pattern of terminal position areas

| Reference Symbol | Dimension in Millimeters |      |      |
|------------------|--------------------------|------|------|
|                  | Min                      | Nom  | Max  |
| A                | 0.44                     | 0.47 | 0.50 |
| b                | 0.25                     | 0.30 | 0.35 |
| c                | 0.08                     | 0.13 | 0.18 |
| D                | 0.55                     | 0.60 | 0.65 |
| E                | 0.75                     | 0.80 | 0.85 |
| $H_E$            | 0.95                     | 1.00 | 1.05 |
| $\phi b$         | —                        | 0.40 | —    |
| $e_1$            | —                        | 1.00 | —    |

**Keep safety first in your circuit designs!**

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