# HSL285

## Silicon Schottky Barrier Diode for Detector

REJ03G0527-0200
Rev.2.00
May 17, 2006

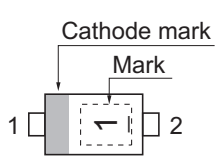
### Features

- 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






1. Cathode
2. Anode

## Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|---|---|---|
| Reverse voltage | $V_R$ | 2 | V |
| Average rectified current | $I_O$ | 5 | mA |
| Junction temperature | Tj | 125 | °C |
| Storage temperature | Tstg | –55 to +125 | °C |

## Electrical Characteristics

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|---|---|---|---|---|---|---|
| Forward voltage | $V_{F1}$ | — | — | 0.15 | V | $I_F$ = 0.1 mA |
| | $V_{F2}$ | — | — | 0.27 | | $I_F$ = 1 mA |
| Capacitance | C | — | 0.3 | — | pF | $V_R$ = 0.5 V, f = 1 MHz |
| ESD-Capability *[1] | — | 10 | — | — | V | C = 200 pF, $R_L$ = 0 Ω, Both forward and reverse direction 1 pulse. |

Notes: 1. Failure criterion ; $I_R \geq 100$ μA at $V_R$ =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

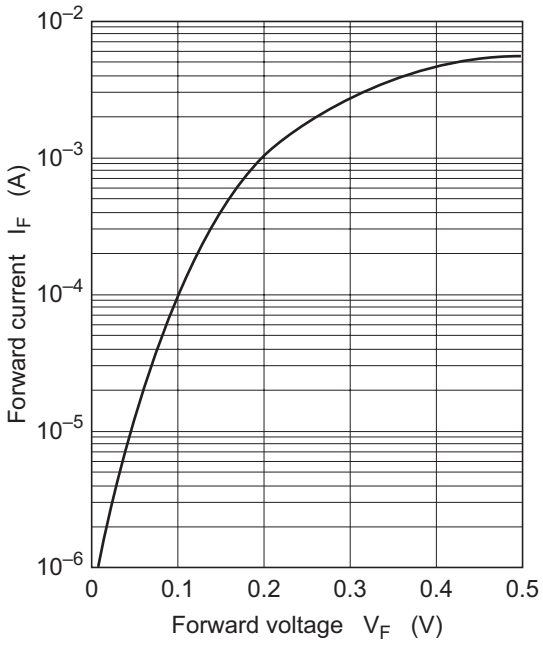



Fig.1 Forward current vs. Forward voltage

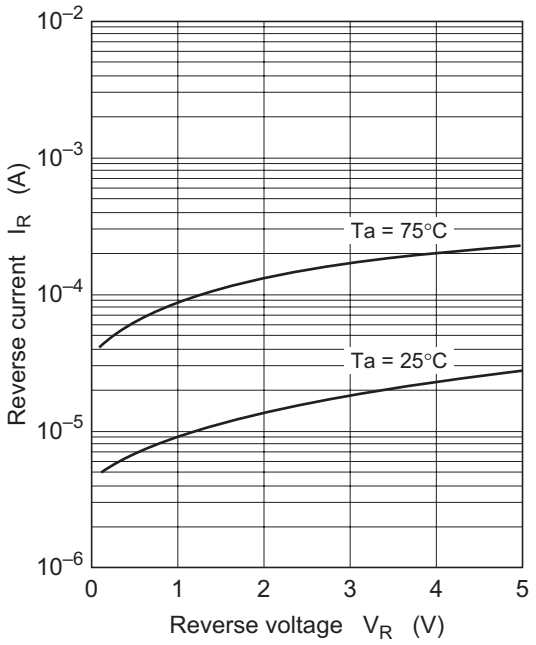



Fig.2 Reverse current vs. Reverse voltage

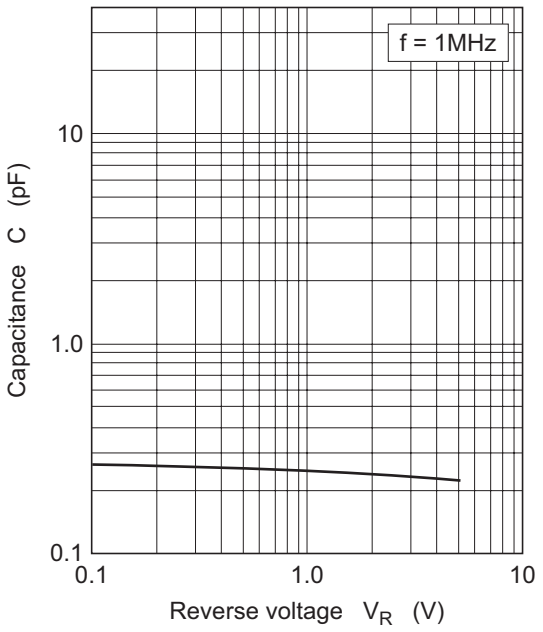
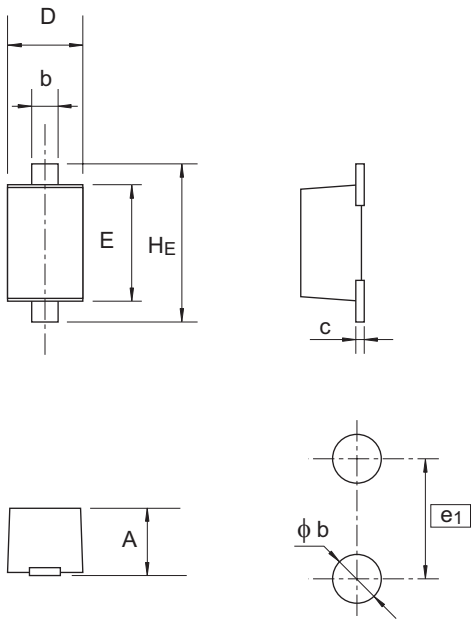



Fig.3 Capacitance vs. Reverse voltage

## 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 |
| ϕ b | — | 0.40 | — |
| e1 | — | 1.00 | — |

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