

# HVL192

## Silicon Epitaxial Planar Pin Diode for Wireless LAN

REJ03G0417-0100  
 Rev.1.00  
 Nov 24, 2005

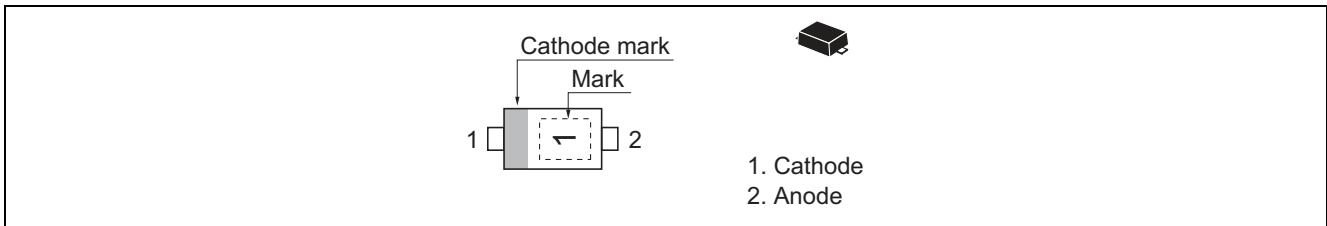
### Features

- Suitable for an antenna switches of wireless LAN and a cordless telephone.
- Super -Low capacitance.(C = 0.30 pF max)
- Low forward resistance. (rf = 3.2  $\Omega$  max)
- Extremely small Flat Lead Package (EFP) is suitable for surface mount design.

### Ordering Information

| Type No. | Laser Mark | Package Name | Package Code (Previous Code) |
|----------|------------|--------------|------------------------------|
| HVL192   | 1          | EFP          | PXSF0002ZA-A (EFP)           |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                 | Symbol    | Value       | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage      | $V_R$     | 30          | V    |
| Forward current      | $I_F$     | 50          | mA   |
| Power dissipation    | $P_d$     | 100         | mW   |
| Junction temperature | $T_j$     | 125         | °C   |
| Storage temperature  | $T_{stg}$ | -55 to +125 | °C   |

## Electrical Characteristics

(Ta = 25°C)

| Item               | Symbol | Min | Typ | Max  | Unit     | Test Condition                           |
|--------------------|--------|-----|-----|------|----------|--|
| Reverse current    | $I_R$  | —   | —   | 100  | nA       | $V_R = 30\text{ V}$                      |
| Forward voltage    | $V_F$  | —   | —   | 1.0  | V        | $I_F = 10\text{ mA}$                     |
| Capacitance        | C      | —   | —   | 0.30 | pF       | $V_R = 1\text{ V}, f = 1\text{ MHz}$     |
| Forward resistance | $r_f$  | —   | —   | 3.2  | $\Omega$ | $I_F = 10\text{ mA}, f = 100\text{ MHz}$ |

Note: 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

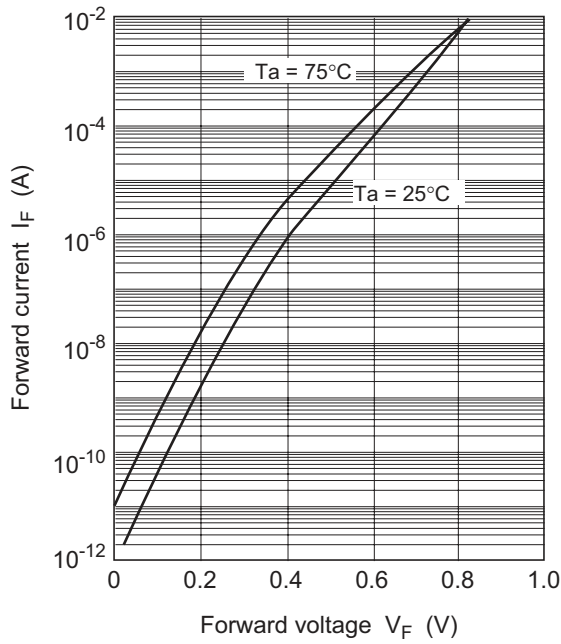


Fig.1 Forward current vs. Forward voltage

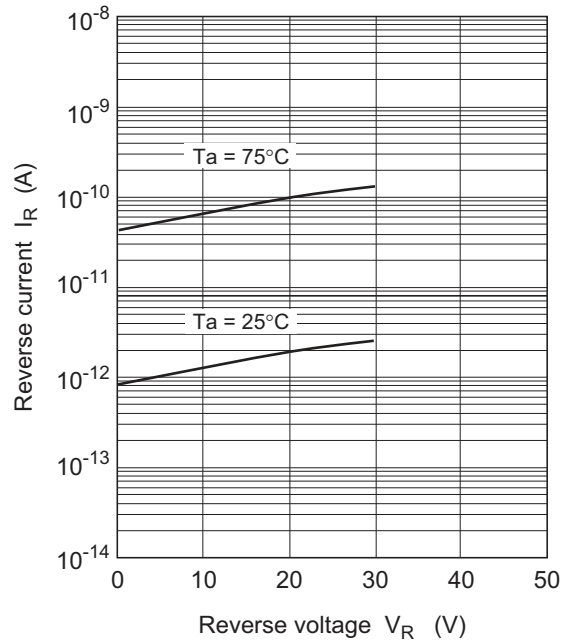


Fig.2 Reverse current vs. Reverse voltage

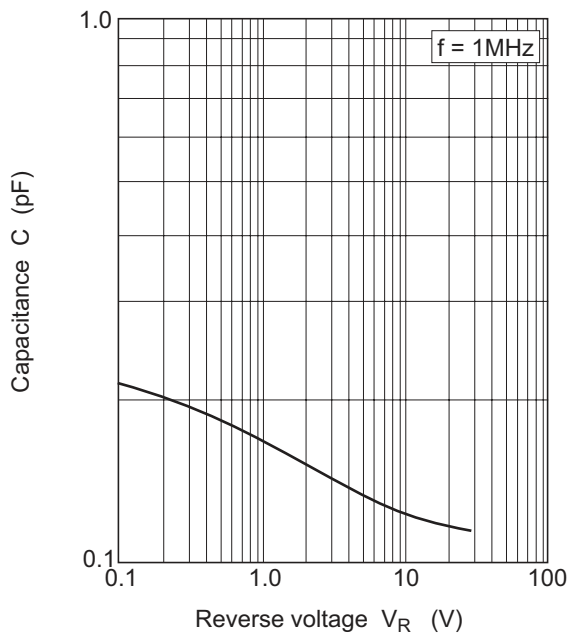


Fig.3 Capacitance vs. Reverse voltage

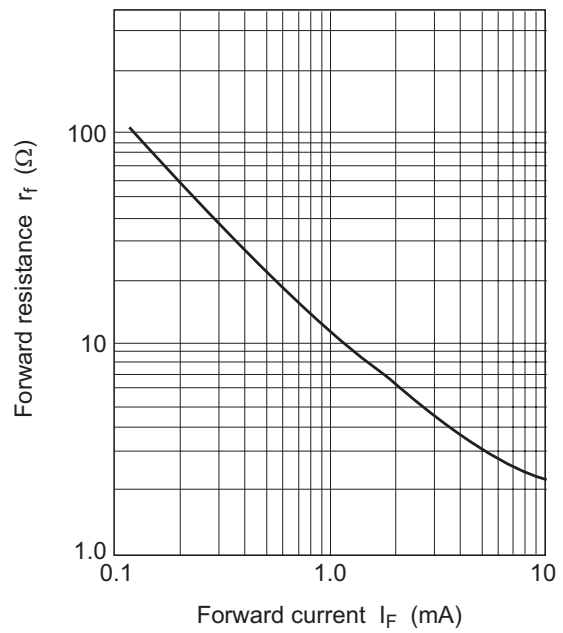
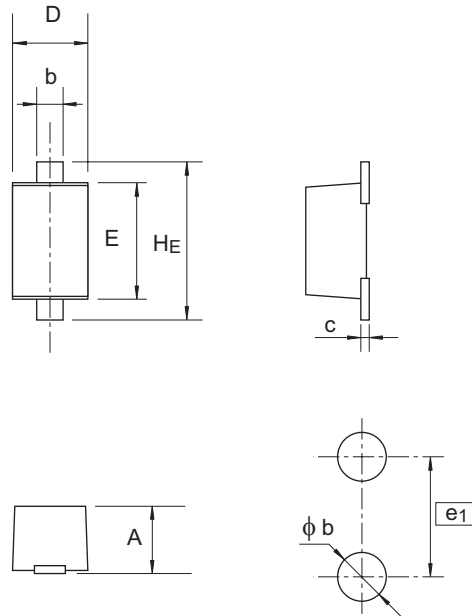


Fig.4 Forward resistance vs. Forward current

### 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 | —    |

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