

HVL368C

Variable Capacitance Diode for VCO

REJ03G0222-0200

Rev.2.00

Mar 10, 2006

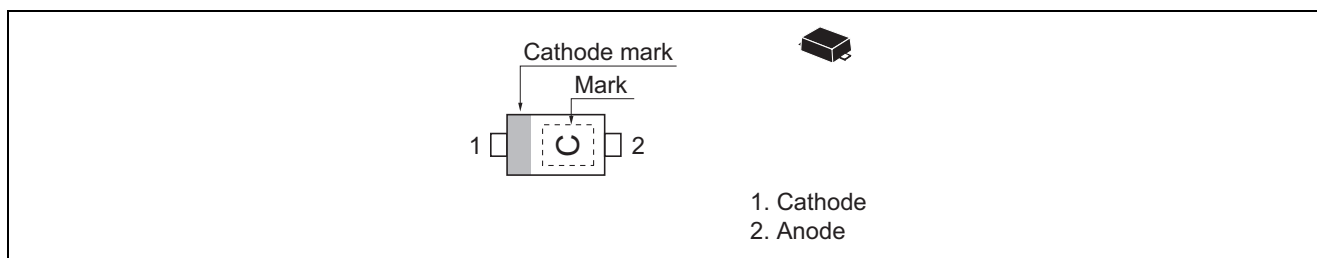
Features

- Narrow terminal Capacitance deviation.
- Low series resistance. ($r_s = 1.1 \Omega$ max)
- Good C-V linearity.
- Extremely small Flat Lead Package (EFP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| HVL368C | C | EFP | PXSF0002ZA-A |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage | V_R | 10 | V |
| 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_{R1} | — | — | 10 | nA | $V_R = 10\text{ V}$ |
| | I_{R2} | — | — | 100 | | $V_R = 10\text{ V}, T_a = 60^\circ\text{C}$ |
| Capacitance | C_1 | 15.0 | — | 16.5 | pF | $V_R = 1\text{ V}, f = 1\text{ MHz}$ |
| | C_2 | 9.0 | — | 10.2 | | $V_R = 2\text{ V}, f = 1\text{ MHz}$ |
| | C_3 | 5.0 | — | 6.0 | | $V_R = 3\text{ V}, f = 1\text{ MHz}$ |
| Capacitance ratio | n | 2.2 | — | — | — | C_1 / C_3 |
| Series resistance | r_s | — | — | 1.1 | Ω | $V_R = 2\text{ V}, f = 470\text{ MHz}$ |

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

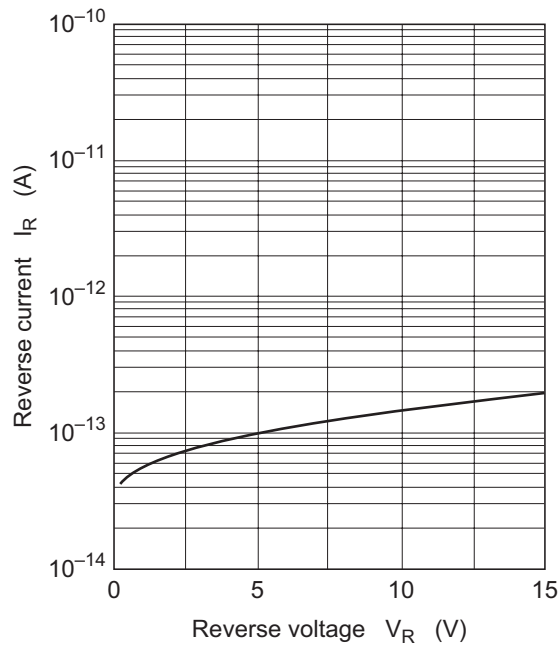


Fig.1 Reverse current vs. Reverse voltage

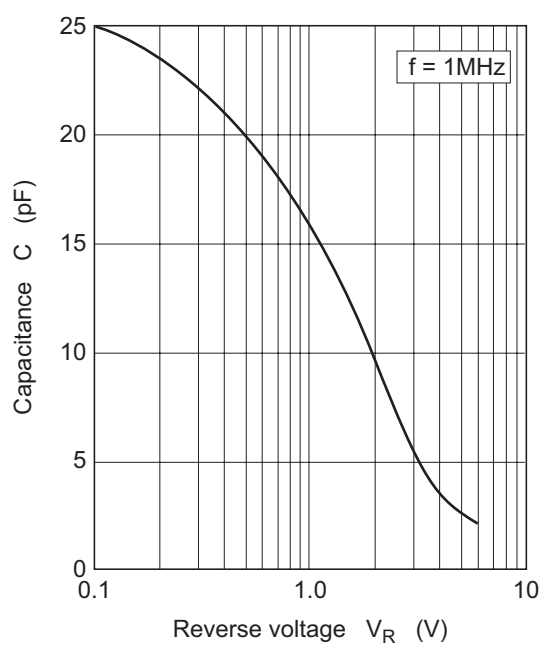


Fig.2 Capacitance vs. Reverse voltage

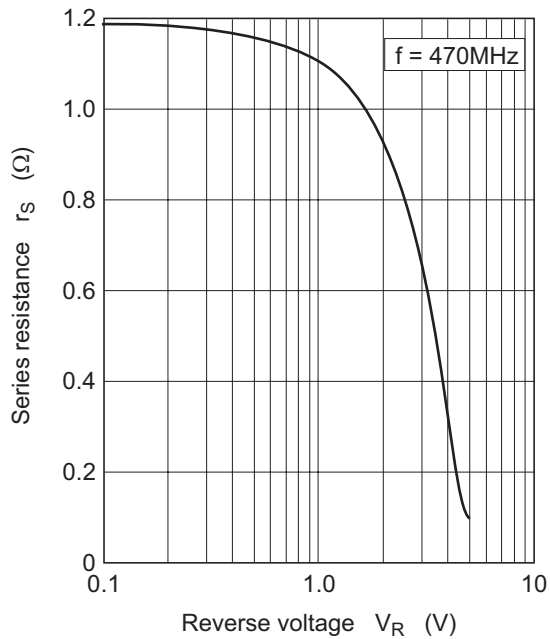
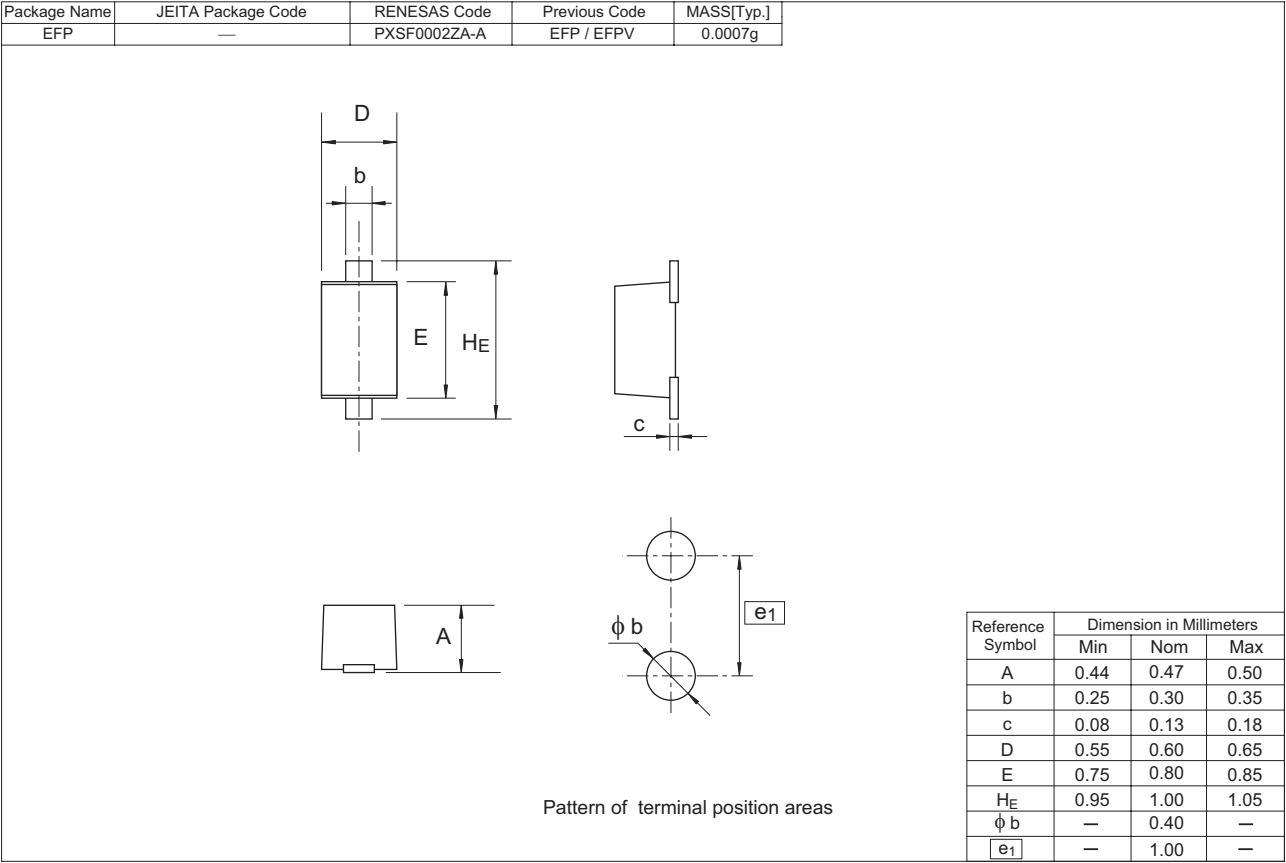


Fig.3 Series resistance vs. Reverse voltage

Package Dimensions



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