
HVD355B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-950 (Z)

Rev. 0
Jun. 2000

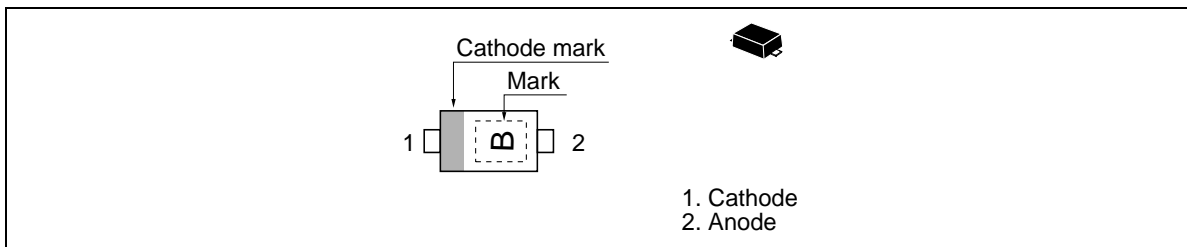
Features

- High capacitance ratio. ($n = 2.20$ min)
- Low series resistance. ($r_s = 0.6 \Omega$ max)
- Super small Flat Package (SFP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVD355B | B | SFP |

Outline



HVD355B

Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|--------|-------------|------|
| Reverse voltage | V_R | 15 | V |
| 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 |
|-------------------|----------|------|-----|------|----------|--------------------------------|
| Reverse current | I_{R1} | — | — | 10 | nA | $V_R = 15V$ |
| | I_{R2} | — | — | 100 | | $V_R = 15 V, T_a = 60^\circ C$ |
| Capacitance | C_1 | 6.40 | — | 7.20 | pF | $V_R = 1 V, f = 1 MHz$ |
| | C_4 | 2.55 | — | 2.95 | | $V_R = 4V, f = 1 MHz$ |
| Capacitance ratio | n | 2.20 | — | — | — | C_1 / C_4 |
| Series resistance | r_s | — | — | 0.6 | Ω | $V_R = 1 V, f = 470 MHz$ |

Note: Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

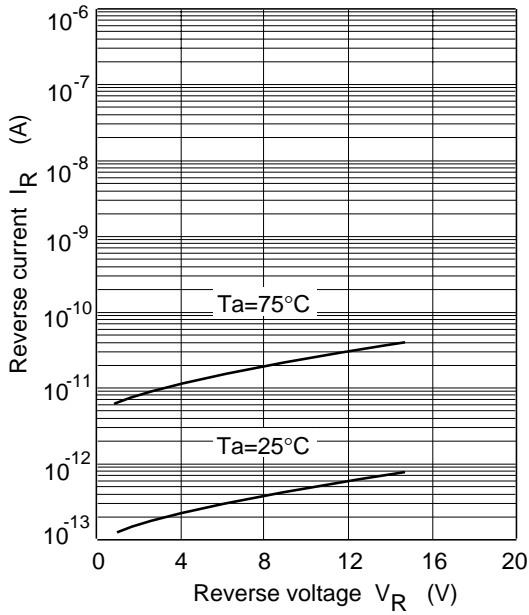


Fig.1 Reverse current Vs. Reverse voltage

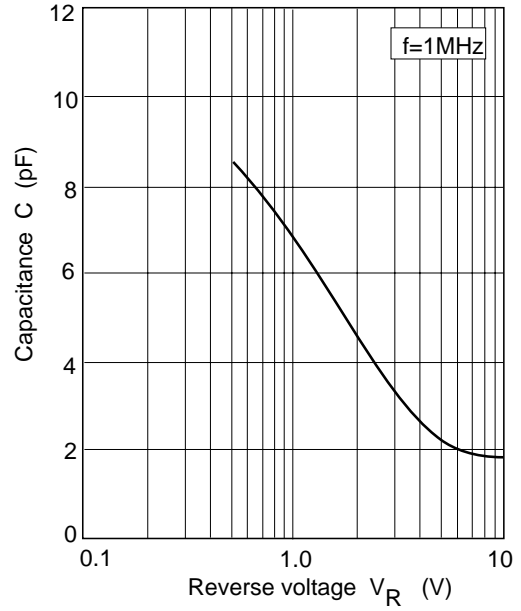


Fig.2 Capacitance Vs. Reverse voltage

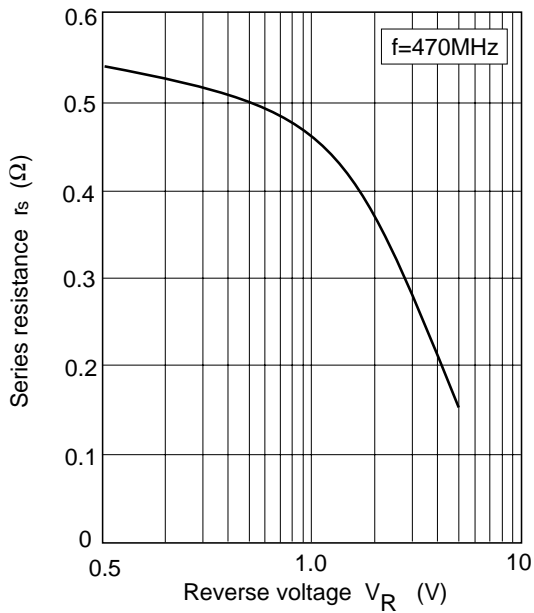


Fig.3 Series resistance Vs. Reverse voltage

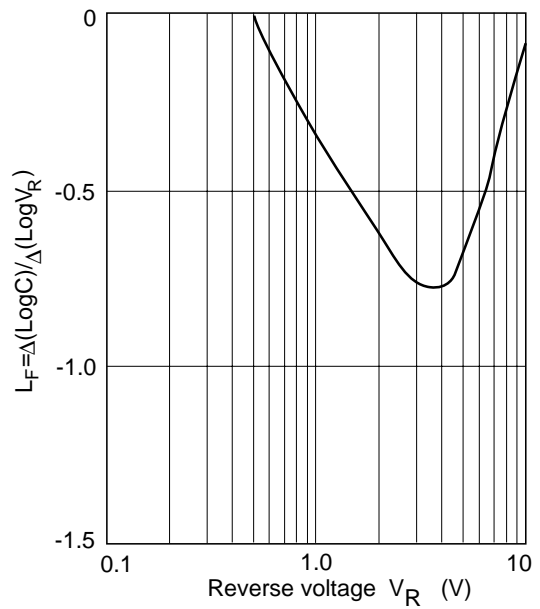
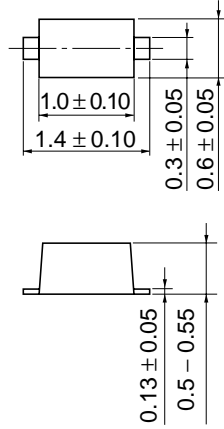


Fig.4 L_F Vs. Reverse voltage

HVD355B

Package Dimensions

Unit: mm



| | |
|------------------------|----------|
| Hitachi Code | SFP |
| JEDEC | — |
| EIAJ | — |
| Mass (reference value) | 0.0010 g |

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