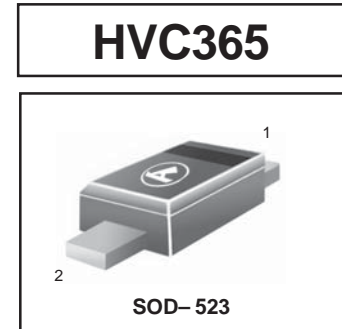


Variable Capacitance Diode for VCXO

FEATURES

- High capacitance ratio and good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.



DEVICE MARKING

HVC365 = V6

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|------------------|--------------|------|
| Reverse voltage | V _R | 15 | V |
| Junction temperature | T _j | 125 | °C |
| Storage temperature | T _{stg} | - 55 to +125 | °C |

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|------------------------------|-----------------|-------|-----|-------|------|---|
| Reverse current | I _{R1} | - | - | 10 | nA | V _R = 10V |
| | I _{R2} | - | - | 100 | | V _R = 10V, T _A = 60°C |
| Capacitance | C ₁ | 27.05 | - | 28.55 | pF | V _R = 1V, f = 1 MHz |
| | C ₄ | 6.05 | - | 7.55 | | V _R = 4V, f = 1 MHz |
| Capacitance ratio | n | 3.0 | - | - | - | C ₁ / C ₄ |
| Series resistance | r _s | - | - | 1.5 | Ω | V _R =4V, f = 470 MHz |
| ESD-Capability ^{*1} | - | 80 | - | - | V | C = 200pF, Both forward and reverse direction 1 pulse. |

Notes 1. Failure criterion ; I_R ≥ 20nA at V_R = 10 V

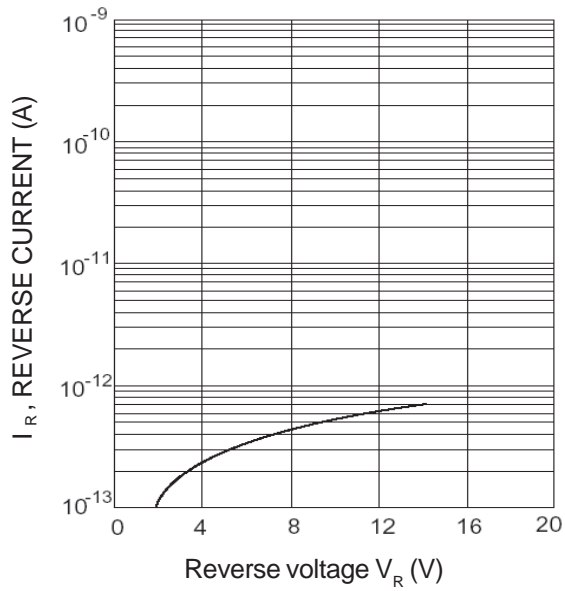
HVC365


Fig.1 Reverse current Vs. Reverse voltage

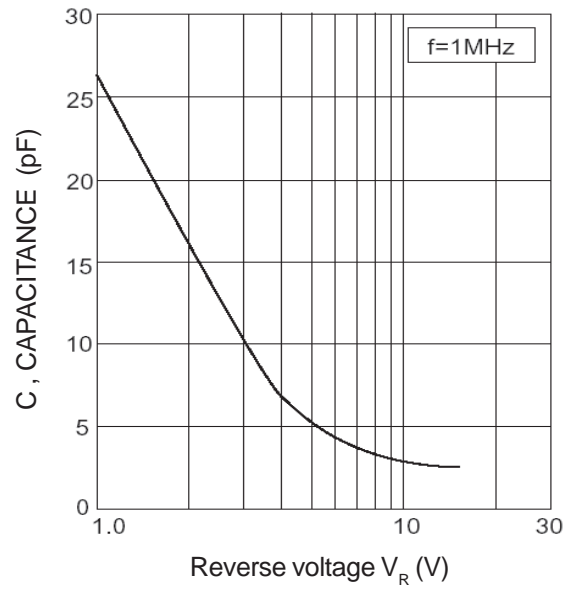


Fig.2 Capacitance Vs. Reverse voltage