

SOT23 SILICON PLANAR VARIABLE CAPACITANCE DIODES

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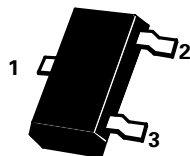


FMMV2101 to FMMV2109

PIN CONFIGURATION



PARTMARKING DETAILS
SEE TUNING CHARACTERISTICS



SOT23

ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|----------------|-------------|------------------|
| Reverse Voltage | V_R | 30 | V |
| Forward Current | I_F | 200 | mA |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 330 | mW |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---|----------|------|------|------|-----------------------|---|
| Reverse Breakdown Voltage | V_{BR} | 30 | | | V | $I_R = 10\mu\text{A}$ |
| Reverse current | I_R | | | 20 | nA | $V_R = 25\text{V}$ |
| Series Inductance | L_S | | 3.0 | | nH | $f=250\text{MHz}$ Lead length $\approx 1.5\text{mm}$ |
| Diode Capacitance Temperature Coefficient | T_{CC} | | 280 | 400 | ppm/ $^\circ\text{C}$ | $V_R = 4\text{V}$, $f=1\text{MHz}$ Lead length $\approx 1.5\text{mm}$ |
| Case Capacitance | C_C | | 0.15 | | pF | $f=1\text{MHz}$ |

TUNING CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$).

| Type No. | Nominal Capacitance (pF) $V_R = 4\text{V}$, $f=1\text{MHz}$ | | | Q - Figure of MERIT $V_R = 4\text{V}$, $f=50\text{MHz}$ | Turning Ratio C_2 / C_{30} $f=1\text{MHz}$ | | Partmark Detail |
|----------|---|------|------|---|--|------|-----------------|
| | Min. | Nom. | Max. | | Min. | Max. | |
| FMMV2101 | 6.1 | 6.8 | 7.5 | 450 | 2.5 | 3.3 | 6R |
| FMMV2103 | 9.0 | 10.0 | 11.0 | 400 | 2.6 | 3.3 | 6G |
| FMMV2104 | 10.8 | 12.0 | 13.2 | 400 | 2.6 | 3.3 | 6H |
| FMMV2105 | 13.5 | 15.0 | 16.5 | 400 | 2.6 | 3.3 | 6J |
| FMMV2107 | 19.8 | 22.0 | 24.2 | 350 | 2.7 | 3.3 | 6L |
| FMMV2108 | 24.3 | 27.0 | 29.7 | 300 | 2.7 | 3.3 | 6M |
| FMMV2109 | 29.3 | 33.0 | 36.3 | 280 | 2.7 | 3.3 | 6N |

* SELECTED DEVICE RANGE OFFERED ONLY