

Silicon Abrupt Tuning Varactor Diodes

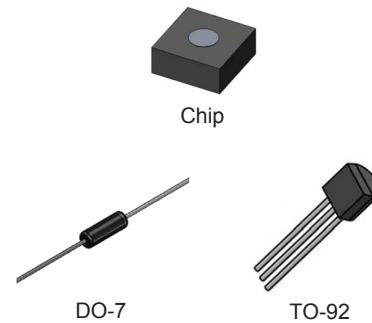
Rev. V1

Features

- Available over a Broad Range of Junction Capacitance
- Satisfies a Large Number of Broadband Applications thru the VHF Frequency Band
- RoHS* Compliant

Description

The SMV21xx Series tuning varactors are silicon abrupt junction devices. They are designed for RF and Microwave applications in VCO's, tunable filters, and matching networks. Available in a wide range of capacitance ratio values.



Electrical Specifications: $T_C = +25^\circ\text{C}$

Part Number	Reverse Voltage V_B $I_R = 10 \text{ mA}$	Capacitance ¹ C_J $V_R = -4 \text{ V}, 1 \text{ MHz}$	Capacitance Ratio C_R $C_{T2} / C_{T30}, 1 \text{ MHz}$	Quality Factor Q $V_R = -4 \text{ V}, 50 \text{ MHz}$
	Minimum	Typical	Minimum	Minimum
SMV2101	30	6.8	2.5	450
SMV2102	30	8.2	2.5	450
SMV2103	30	10	2.5	400
SMV2104	30	12	2.5	400
SMV2105	30	15	2.5	400
SMV2106	30	18	2.5	350
SMV2107	30	22	2.5	350
SMV2108	30	27	2.5	300
SMV2109	30	33	2.5	200
SMV2110	30	39	2.5	150
SMV2111	30	47	2.5	150
SMV2112	30	56	2.6	150
SMV2113	30	68	2.6	15
SMV2114	30	82	2.6	100
SMV2115	30	100	2.6	100

1. Capacitance values given will vary depending upon the desired packaging type. Capacitance tolerance = $\pm 10\%$.

Absolute Maximum Ratings

Parameter	Absolute Maximum
Power Dissipation	250 mW
Operating Temperature	-55°C to $+125^\circ\text{C}$
Storage Temperature	-65°C to $+150^\circ\text{C}$

ESD & Moisture Sensitivity Level Rating

As are all semiconductors, silicon hyperabrupt tuning varactor diode are susceptible to damage from ESD events. Proper ESD prevention procedures should be followed. The ESD rating for these devices is Class 0 (HBM).

1 * Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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