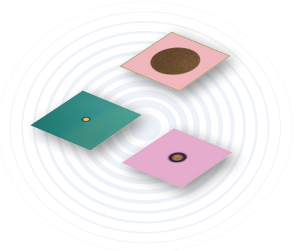
Varactor Diodes for VCO Applications

Features

- Diverse portfolio, featuring a wide variety of capacitance vs. voltage curves
- Varactor offering includes both abrupt junction and hyperabrupt junction devices
- Individual varactor diodes feature high tuning ratio and low series resistance
- Available in a variety of package styles including SOT-23, SC-79, SC-70, ceramic and discrete die
- Available in a variety of configurations, including single, common cathode and common anode
- All available varactors are lead (Pb)-free and RoHS-compliant



Description

The easier, faster way to design quality VCO solutions.

Skyworks Solutions is committed to making your VCO designs easier than ever. This sample kit has 10 samples of some of our most popular varactor products in die form. Also included is a CD of our data sheets and application notes.

Skyworks has a long history of providing high quality RF components for a diversified set of wireless communications applications. We build GaAs and silicon discrete devices including amplifiers, switches, attenuators, diodes, power dividers, and more. Our integrated offerings combine discrete components to produce leading-edge products such as mixers, demodulators, variable gain amplifiers, synthesizers, and power amplifier modules.

We have made it easy to order our parts as well. Once you find the right products for your design, simply go to our online store to purchase your prototype volumes.

Buy Now Innovation to Go™ Select products are now available for purchase online.

To keep up with all of our newest products, visit the Skyworks Web site at www.skyworksinc.com

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Hyperabrupt Diode Chips

Part Number	Min V_B I_R @ 10 uA (V)	C_J @ 0 V (pF) Typ.	C_J @ 4 V (pF) Typ.	C_J @ 20 V (pF) Typ.	Q @ 4 V 50 MHz	Typ. R_S @ 4 V 1000 MHz	Nominal Die Size (")
SMV2019-000	22	2.3	0.84	0.16	500	4.8	0.012
SMV2020-000	22	3.1	1.24	0.26	500	4.1	0.012
SMV2021-000	22	4.5	1.83	0.36	500	2.8	0.012
SMV2022-000	22	7.1	2.71	0.54	400	2.2	0.012
SMV2023-000	22	10.8	4.75	0.91	400	1.4	0.012

Abrupt Diode Chips

Part Number	Min. V_B I_R @ 10 µA (V)	C_T @ 4 V Range (pF)	Min. C_T @ 0 V/ C_T @ 30 V (Ratio)	Max. R_S @ 4 V 500 MHz (Ω)	Typ. Q @ 4 V 50 MHz	Nominal Die Size (")
SMV1405-000	30	1.08–1.32	4.1	0.8	3200	0.014
SMV1408-000	30	1.62–1.98	4.1	0.6	2900	0.014
SMV1413-000	30	3.59–4.29	4.2	0.35	2400	0.014

Part Number	Min. V_B I_R @ 10 µA (V)	C_T @ 1 V Range (pF)	C_T @ 4 V Range (pF)	Max. R_S @ 1 V 500 MHz (Ω)	Nominal Die Size (")
SMV1493-000	12	17.4–20.0	9.87–11.97	0.5	0.018
SMV1494-000	12	36.3–41.7	20.57–25.07	0.45	0.018