

Features

- Low Inductance
- Wide Capacitance Swing
- High Q
- Superior Reproducibility
- RoHS* Compliant



Glass Axial Leaded

Description

The KSV14xx series of hyperabrupt tuning varactor diodes offer high Qs. These diodes are excellent for octave tuning up to 800 MHz and for straight-line frequency tuning between 3 and 8 Volt of bias. They achieve high Q values when tuned between 9 and 20 volts.

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

Part Number	Total Capacitance (C_T) pF				Tuning Ratio (T_R)		Quality Factor (Q)
	-1 V, 1 MHz		-2 V, 1 MHz		C_T 1 V / 10 V, 1 MHz	C_T 2 V / 10 V, 1 MHz	-2 V, 1 MHz
	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Min.)	(Min.)
KSV1401	440	660	—	—	14:1	—	200
KSV1402	—	—	45	69	—	10:1	200
KSV1403	—	—	140	210	—	10:1	200
KSV1404	—	—	96	144	—	10:1	200
KSV1405	—	—	200	300	—	10:1	200
KSV1406	—	—	80	120	—	10:1	200
KSV1407	—	—	54	82	—	10:1	200
KSV1408	—	—	37	57	—	10:1	200
KSV1409	—	—	26	40	—	10:1	200
KSV1410	—	—	17	27	—	9.5:1	200
KSV1411	—	—	12	18	—	8.5:1	200
KSV1412	—	—	8	12	—	7.5:1	200

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
DC Power Dissipation	400 mW
Reverse Breakdown Voltage	10 μ A _{DC} , 12 V _{DC} min.
Reverse Leakage Current	V _R = 10 V _{DC} , 0.1 μ V _{DC}
Capacitance Tolerance	+/-20%
Junction Temperature	+175°C
Operating Temperature	-55°C to +150°C
Storage Temperature	-65°C to +200°C

1. Capacitance tolerance suffix A = 10%, suffix B = 5%.
2. To order devices screened to MIL-PRF-19500 JANTX level, Appendix E, table IV add suffix H.

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