

UHF-MICROWAVE SUPER HYPERABRUPT JUNCTION VARACTOR DIODES

DESCRIPTION

The KV 1900 series of super hyperabrupt varactor diodes combines low voltage with high ratio tuning. They feature grown junction mesa technology for the highest Q commercially available. Passivation is our dense mil spec silicon dioxide for the lowest 1/F noise and low leakage even at temperature extremes. They are available in a wide range of package styles including chip (style 00) and most other conventional ceramic microwave packages. When ordering, specify the desired case style by adding its number as a suffix to the basic model number. For more details on surface mount Super Hyperabrupt Varactors see the Surface Mount Devices section.

APPLICATIONS

Low voltage / battery powered equipment from UHF through Ku band including:

- Wide bandwidth VCO's
- Voltage Tunable Filters
- Phase Shifters
- Modulators
- VCXO's

RATINGS:

Minimum Voltage Breakdown: 12 V @ 10 μ A

Maximum Leakage Current: 50 nA @ 10 V / 25°C

Junction Operating Temp.: -55°C to +125°C

Storage Temp.: -65°C to +200°C

ELECTRICAL SPECIFICATIONS: T_A=25°C

MODEL	C _J @ 1 V (pF)	C _J @ 2.5 V (pF)	C _J @ 4 V (pF)	C _J @ 8 V (pF)	Q @ 4 V / 50 MHz
KV1911A	>36.00	18 - 27	<11.80	<6.00	400
KV1951A	>26.00	13 - 20	< 8.80	<4.50	500
KV1921A	>17.00	8.3 - 12.8	< 5.80	<3.00	600
KV1931A	>13.00	6.3 - 9.8	< 4.30	<2.50	750
KV1941A	> 9.00	4.3 - 6.3	< 2.80	<1.50	900
KV1961A	> 3.80	1.8 - 2.8	< 1.30	<0.80	1200
KV1971A	> 1.65	0.9 - 1.35	< 0.60	<0.35	1400
KV1981A	> 1.20	0.6 - 0.9	< 0.45	<0.30	1600
KV1991A	> 0.60	0.3 - 0.6	< 0.25	<0.15	1800