

## 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  $\mu$ 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<sub>A</sub>=25°C

MODEL	C <sub>J</sub> @ 1 V (pF)	C <sub>J</sub> @ 2.5 V (pF)	C <sub>J</sub> @ 4 V (pF)	C <sub>J</sub> @ 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