

# KNOX SEMICONDUCTOR, INC.

## SILICON HYPERABRUPT TUNING DIODES

The SMV1400 Series of hyperabrupt varactors offer high capacitance ratios with linear tuning between 2 and 8 volts. The units are available over a broad range junction capacitances, satisfying a large number of broadband applications thru the VHF frequency band. The standard outline SOT-23 and SOD-323 package adapts the product series to surface mount technology.

### SMV1402 - SMV1412

TYPE NUMBER	DIODE CAPACITANCE (CT) pF @ 2V•1 MHz		TUNING RATIO (TR) C•2V / C•10V @ 1 MHz	QUALITY FACTOR Q @ 2V • 1 MHz
	MIN	MAX	MIN	MIN
SMV1402	45	69	10:1	200
SMV1403*	140	210	10:1	200
SMV1404	96	144	10:1	200
SMV1405*	200	300	10:1	200
SMV1406	80	120	10:1	200
SMV1407	54	82	10:1	200
SMV1408♦	37	57	10:1	200
SMV1409♦	26	40	10:1	200
SMV1410♦	17	27	9.5:1	200
SMV1411♦	12	18	8.5:1	200
SMV1412♦	8	12	7.5:1	200

### MAXIMUM RATINGS

Package Style	(DO-7 Available)	SOT-23
Device Dissipation (Pd)	Ta = 25°C	250 mW
Junction Temperature (Tj)		125°C
Reverse Breakdown Voltage (VBR)	10 µAdc	12 Vdc Min
Max Reverse Leakage Current (IR)	Vr = 10 Vdc	0.1 µAdc
Operating Temperature (Topr)		-55° to + 125°C
Storage Temperature (Tstg)		-65° to + 150°C
Capacitance Tolerance	Standard Device	± 20%
	Suffix A	± 10%
	Suffix B	± 5%

- Common anode connection.

♦ Available in SOD-323 surface mount package. Part number changes to SMD.

# KNOX SEMICONDUCTOR, INC.

