

KNOX SEMICONDUCTOR, INC.

SMV3022 / 3033 SERIES SUPER HYPERABRUPT TUNING DIODES FOR VCXO'S

- Extremely High Capacitance Swing
- Linear Characteristics
- Uniform Capacitance / Temperature Coefficient
- Highly Reproducible Ion Implanted Structure
- SOT-23 and SOD-323 Surface Mount Package
- Available in Chip Form

Designed for 5 volt Circuits

TYPE NUMBER	C _T @ -1 V (pF) MIN	C _T @ -2.5 V (pF) MIN MAX		C _T @ -4 V (pF) MAX	R _s @ -4 VOLTS 50 MHz MAX
SMV30222 ♦	18	5	7	2.4	4.0 Ω
SMV30223 ♦	36	10	14	4.8	2.3 Ω
SMV30224 ♦	54	15	21	7.2	1.9 Ω
SMV30225 ♦	72	20	28	9.6	1.5 Ω

Designed for 3 volt Circuits

TYPE NUMBER	C _T @ -0.3 V / C _T @ -1.65 V RATIO MIN TYP		C _T @ -1.65 V (pF) MIN MAX		C _T @ -1.65 V / C _T @ -3.0 V RATIO MIN TYP		R _s @ -1.65 VOLTS 50 MHz MAX
SMV30333 ♦	3.0	4.0	11.0	14.0	3.0	4.0	9.0 Ω

Package Style	SOT-23
Reverse Breakdown Voltage (V _{BR})	8 Volt Min
Max Reverse Leakage Current (I _R)	0.1 μA _{dc}
Device Dissipation (P _D)	250 mW
Operating Temperature (T _{opr})	-55° to +125°C
Storage Temperature (T _{stg})	-65° to +150°C
	10 μA _{dc}
	V _R = 6 Volts
	T _a = 25°C

- ♦ Available in **SOD-323** surface mount package. Part number changes to **SMD**.
To specify a Chip - delete prefix SMV or SMD and add suffix -CO (i.e. 30222-CO)