

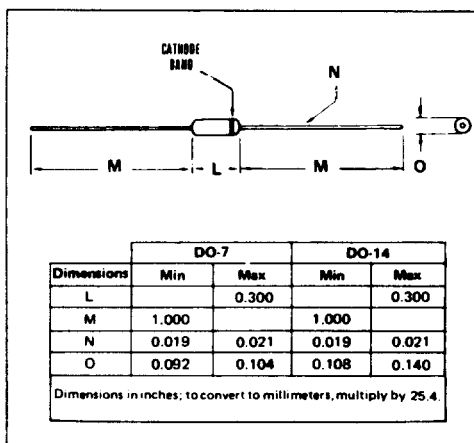
# ABRUPT TUNING VARACTORS

SERIES  
1N4786 - 1N4800  
1N4801 - 1N4815

Controlled tuning ratio with planar reliability make these diodes well suited for frequency synthesizer, VCO and related electronic control and tuning applications.

## GENERAL SPECIFICATIONS (25°C unless noted)

Rating	Symbol	Value
Reverse Voltage	$V_R$	As Specified
Reverse Voltage Leakage Current	$I_R$	0.005 $\mu$ A dc Max @ rated $V_R$ 5.0 $\mu$ A dc Max @ rated $V_R$ ; $T_A = 150^\circ\text{C}$
Device Dissipation Derate above 25°C	$P_D$	400 mW Max 2.67 mW/ $^\circ\text{C}$
Junction Temperature	$T_j$	+175°C Max
Storage Temperature	$T_{stg}$	-65°C to 200°C
Case Capacitance	$C_C$	(DO-14) 0.3 pf Typ (DO-7) 0.2 pf Typ
Series Inductance	$L_S$	5 nH Typ



## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ$ )

Type No.*	Cap $\pm 20\%$ @ 4V/1 MHz pf	Q @ 4V/50 MHz Min	$V_R$ Volts Min	Tuning Ratio		Case
				$C_1/C_4$ Min	$C_V/C_4$ Max	
1N4786	6.8	15	25	2.40	.482	DO-7
1N4787	8.2	15	25	2.42	.473	DO-7
1N4788	10.0	15	25	2.46	.461	DO-7
1N4789	12.0	15	25	2.35	.457	DO-7
1N4790	15.0	15	25	2.37	.448	DO-7
1N4791	18.0	15	20	2.36	.497	DO-7
1N4792	22.0	15	20	2.35	.497	DO-7
1N4793	27.0	15	20	2.35	.496	DO-7
1N4794	33.0	15	20	2.35	.495	DO-7
1N4795	39.0	15	20	2.35	.494	DO-7
1N4796	47.0	15	20	2.33	.492	DO-7
1N4797	56.0	15	15	2.32	.560	DO-7
1N4798	68.0	15	15	2.30	.560	DO-7
1N4799	82.0	15	15	2.26	.560	DO-14
1N4800	100.0	15	15	2.24	.560	DO-14
1N4801	6.8	15	100	2.40	.285	DO-7
1N4802	8.2	15	100	2.42	.283	DO-7
1N4803	10.0	15	100	2.46	.283	DO-7
1N4804	12.0	15	100	2.35	.270	DO-7
1N4805	15.0	15	100	2.37	.247	DO-7
1N4806	18.0	15	90	2.36	.254	DO-7
1N4807	22.0	15	90	2.35	.252	DO-7
1N4808	27.0	15	65	2.35	.287	DO-7
1N4809	33.0	15	60	2.35	.295	DO-7
1N4810	39.0	15	55	2.34	.306	DO-7
1N4811	47.0	15	50	2.33	.325	DO-7
1N4812	56.0	15	40	2.32	.354	DO-7
1N4813	68.0	15	30	2.30	.406	DO-7
1N4814	82.0	15	20	2.26	.491	DO-7
1N4815	100.0	15	20	2.24	.490	DO-14

\*Type Nos. shown are for  $\pm 20\%$  Cap. tolerance; for  $\pm 10\%$  tolerance, specify Type No. with "A" suffix; for  $\pm 5\%$  with "B" suffix; for  $\pm 2\%$  with "C" suffix.