



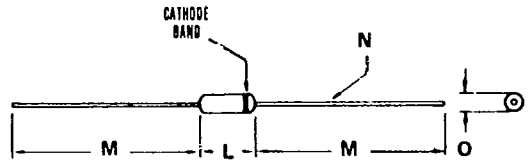
ABRUPT TUNING VARACTORS

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 μ A _{dc} Max @ rated V_R 5.0 μ 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



Dimensions	DO-7		DO-14	
	Min	Max	Min	Max
L		0.300		0.300
M	1.000		1.000	
N	0.019	0.021	0.019	0.021
O	0.092	0.104	0.108	0.140

Dimensions in inches; to convert to millimeters, multiply by 25.4.

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.