

VARACTOR TUNING DIODES

JEDEC Part Number	Product Highlights	Capacitance at $V_R=4.0$ V and $f=1.0$ MHz	Figure of Merit at 4.0 V and 50 MHz	Capacitance Ratio 2.0 V to V_{RW} V		Maximum Working Voltage	Minimum Reverse Breakdown at $I_R=10$ μ A	Maximum Ratings	
		(pF)	Minimum	Min	Max	V_{RW} (Volts)	V_{RR} (Volts)		
1N5681 1N5682 1N5683 1N5684 1N5685	Very High Q	6.8	600	3.1	3.3	30	30	Package Style	DO-7
1N5686 1N5687 1N5688 1N5689 1N5690		Intermediate Voltage	7.0	600	3.1			3.3	DC Power Dissipation @ $T_A=25^\circ\text{C}$
1N5691 1N5692 1N5693 1N5694 1N5695	Low Leakage		10.0	550	3.2			3.4	Reverse Current @ $T_A=25^\circ\text{C}$ and $V_R = 25.0$ volts
			12.0	550	3.2			3.4	Reverse Current @ $T_A=150^\circ\text{C}$ and $V_R = 25.0$ volts
		15.0	550	3.2	3.4			Operating Temp. Range	$-65^\circ\text{C}/+150^\circ\text{C}$
		18.0	500	3.2	3.4			Storage Temp. Range	$-65^\circ\text{C}/+150^\circ\text{C}$
		22.0	500	3.3	3.5			Capacitance Tolerance	
		27.0	500	3.3	3.5			Standard Device	$\pm 2\%$
		33.0	500	3.3	3.5			Suffix A	$\pm 10\%$
		39.0	450	3.3	3.5			Suffix B	$\pm 5\%$
		47.0	400	3.3	3.5	Suffix C	$\pm 2\%$		
1N5458 1N5459 1N5460 1N5461 1N5462	Very High Q	3.9	600	2.5	3.1	40	45	Package Style	DO-7
1N5463 1N5464 1N5465 1N5466 1N5467		Low Voltage	4.7	600	2.6			3.1	DC Power Dissipation @ $T_A=25^\circ\text{C}$
1N5468 1N5469 1N5470 1N5471 1N5472	Low Leakage		5.6	600	2.6			3.1	Reverse Current @ $T_A=25^\circ\text{C}$ and $V_R = V_{RW}$ volts
			7.0	600	2.7			3.1	Reverse Current @ $T_A=150^\circ\text{C}$ and $V_R = V_{RW}$ volts
		8.2	600	2.8	3.1			Operating Temp. Range	$-65^\circ\text{C}/+175^\circ\text{C}$
		10.0	550	2.8	3.1			Storage Temp. Range	$-65^\circ\text{C}/+200^\circ\text{C}$
		12.0	550	2.8	3.1			Capacitance Tolerance	
		15.0	550	2.9	3.1			Standard Device	$\pm 20\%$
		18.0	500	2.9	3.1			Suffix A	$\pm 10\%$
		20.0	500	2.9	3.1			Suffix B	$\pm 5\%$
1N5473 1N5474 1N5475 1N5476		22.0	500	2.9	3.1				
		27.0	500	2.9	3.1				
		33.0	500	2.9	3.2				
		39.0	450	2.9	3.2				
		47.0	400	2.9	3.2				
1N5139 1N5140 1N5141 1N5142 1N5143	High Q	6.8	350	2.7		60	65	Package Style	DO-7
1N5144 1N5145 1N5146 1N5147 1N5148		High Voltage	10.0	300	2.8				DC Power Dissipation @ $T_A=25^\circ\text{C}$
			12.0	300	2.8				Reverse Current @ $T_A=25^\circ\text{C}$ and $V_R = 55$ volts
		15.0	250	2.8				Reverse Current @ $T_A=150^\circ\text{C}$ and $V_R = 55$ volts	20 μ A
		18.0	250	2.8				Temp. Coefficient of Capacitance at $VR=4.0$ Vdc and $T_A=-40/+85^\circ\text{C}$	0.03 %/ $^\circ\text{C}$
		22.0	200	3.2				Operating Temp. Range	$-65^\circ\text{C}/+175^\circ\text{C}$
		27.0	200	3.2				Storage Temp. Range	$-65^\circ\text{C}/+200^\circ\text{C}$
		33.0	200	3.2				Capacitance Tolerance	
		39.0	200	3.2				Standard Device	$\pm 10\%$
		47.0	200	3.2				Suffix A	$\pm 5\%$
						Suffix B	$\pm 2\%$		
						Suffix C	$\pm 1\%$		
1N5696B 1N5697B 1N5698B 1N5699B 1N5700B	High Q	6.8	450	2.7	2.9	60	65	Package Style	DO-7
1N5701B 1N5702B 1N5703B 1N5704B 1N5705B		High Voltage	8.2	450	2.7			2.9	DC Power Dissipation @ $T_A=25^\circ\text{C}$
1N5706B 1N5707B 1N5708B 1N5709B 1N5710B	Low Leakage		10.0	400	2.8			3.0	Reverse Current @ $T_A=25^\circ\text{C}$ and $V_R = 25.0$ volts
			12.0	400	2.8			3.0	Reverse Current @ $T_A=150^\circ\text{C}$ and $V_R = 25.0$ volts
		15.0	400	2.8	3.0			Operating Temp. Range	$-65^\circ\text{C}/+150^\circ\text{C}$
		18.0	375	2.9	3.0			Storage Temp. Range	$-65^\circ\text{C}/+150^\circ\text{C}$
		22.0	375	3.2	3.4			Capacitance Tolerance	
		27.0	350	3.2	3.4			Standard B Suffix	$\pm 5\%$
		33.0	350	3.2	3.4			No Suffix	$\pm 20\%$
		39.0	325	3.2	3.4			Suffix A	$\pm 10\%$
		47.0	300	3.2	3.4	Suffix C	$\pm 2\%$		
		56.0	225	3.2	3.4				
		68.0	175	3.2	3.4				
		82.0	150	3.2	3.4				
		100.0	150	3.2	3.4				