

# VARACTOR TUNING DIODES

JEDEC Part Number	Product Highlights	Capacitance at VR=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 <sub>max</sub> V		Maximum Working Voltage	Minimum Reverse Breakdown at I <sub>r</sub> =10 uA	Maximum Ratings					
		(pF)	Minimum	Min	Max	V <sub>max</sub> (Volts)	V <sub>br</sub> (Volts)						
1N5439 1N5440 1N5441 1N5442 1N5443	High Q  Low Voltage	3.3 4.7 6.8 8.2 10.0	450 450 450 450 400	2.3 3.1 2.4 3.1 2.5 3.1 2.5 3.1 2.6 3.1	30	30	30	Reverse Current @ T <sub>a</sub> =25°C and V <sub>r</sub> = 25.0 volts	20 nA				
1N5444 1N5445 1N5446 1N5447 1N5448		12.0 15.0 18.0 20.0 22.0	400 400 350 350 350	2.6 3.1 2.6 3.1 2.6 3.1 2.6 3.1 2.6 3.2				Reverse Current @ T <sub>a</sub> =150°C and V <sub>r</sub> = 25.0 volts	20 uA				
1N5449 1N5450 1N5451 1N5452 1N5453		27.0 33.0 39.0 47.0 56.0	350 350 300 250 200	2.6 3.2 2.6 3.2 2.6 3.2 2.6 3.2 2.6 3.3				Package Style	DO-7				
1N5454 1N5455 1N5456 1N5457		68.0 82.0 100.0 120.0	175 175 175 150	2.7 3.3 2.7 3.3 2.7 3.3 2.7 3.3				DC Power Dissipation @ T <sub>a</sub> =25°C	400 mW				
1N950 1N951 1N952 1N953		Low Q Low Voltage	28 40 56 80	7				2.4	130 80 60 25	130 100 75 30	130 100 75 30	Operating Temp. Range	-65°C/+150°C
1N954 1N955 1N956			General Purpose									28 40 56	25 25 25
								Capacitance Standard					
								Standard Device	± 2 %				
								Suffix A	± 1 %				
								Suffix B	± 5 %				
								Suffix C	± 2 %				
								All Dimensions in Inches mm DO-7					
								Reverse Current @ T <sub>a</sub> =25°C and V <sub>r</sub> = V <sub>max</sub> Volts	1.0 uA				
								Reverse Current @ T <sub>a</sub> =150°C and V <sub>r</sub> = V <sub>max</sub> Volts	50 uA				

JEDEC Part Number	Product Highlights	Capacitance at VR=4.0 V and f=1.0 MHz	Figure of Merit at 4.0 V and 50 MHz	Capacitance Ratio 0.1V to 4.0V V <sub>max</sub> TO 4.0V		Maximum Working Voltage	Minimum Reverse Breakdown at I <sub>r</sub> =10 uA	Maximum Ratings					
		(pF)	Minimum	Min	Max	V <sub>max</sub> (V)	V <sub>br</sub> (V)						
1N4801B 1N4802B 1N4803B 1N4804B 1N4805B	High Voltage	6.8 8.2 10.0 12.0 15.0	15	2.40 2.56 2.42 2.58 2.34 2.50 2.35 2.49 2.37 2.49	0.260 0.285 0.263 0.283 0.242 0.262 0.242 0.259 0.242 0.256	100 100 100 100 100	110 110 110 110 110	Package Style	DO-7				
1N4806B 1N4807B 1N4808B 1N4809B 1N4810B		18.0 22.0 27.0 33.0 39.0		2.36 2.48 2.35 2.46 2.35 2.46 2.35 2.46 2.34 2.44	0.242 0.254 0.241 0.252 0.276 0.285 0.287 0.295 0.300 0.306	90 90 65 60 55	99 99 72 66 61	Package Style	DO-14				
1N4811B 1N4812B 1N4813B 1N4814B 1N4815B		47.0 56.0 68.0 82.0 100.0		2.33 2.43 2.32 2.42 2.30 2.40 2.26 2.36 2.24 2.33	0.313 0.320 0.348 0.354 0.398 0.404 0.477 0.483 0.478 0.484	50 40 30 20 20	55 44 33 22 22	DC Power Dissipation @ T <sub>a</sub> =25°C	400 mW				
1N4786 1N4787 1N4788 1N4789 1N4790		Low Voltage		6.8 8.2 10.0 12.0 15.0	15	2.40 2.56 2.42 2.58 2.34 2.50 2.35 2.49 2.37 2.49	0.462 0.482 0.455 0.473 0.443 0.461 0.441 0.457 0.438 0.448	25 25 25 25 25	28 28 28 28 28	Reverse Current @ T <sub>a</sub> =25°C and V <sub>r</sub> = 55 volts	5 nA		
1N4791 1N4792 1N4793 1N4794 1N4795				18.0 22.0 27.0 33.0 39.0		2.36 2.48 2.35 2.46 2.35 2.46 2.35 2.46 2.34 2.44	0.487 0.497 0.487 0.497 0.486 0.496 0.485 0.495 0.483 0.494	20 20 20 20 20	22 22 22 22 22	Reverse Current @ T <sub>a</sub> =150°C and V <sub>r</sub> = 55 volts	5 uA		
1N4796 1N4797 1N4798 1N4799 1N4800				47.0 56.0 68.0 82.0 100.0		2.33 2.43 2.32 2.42 2.30 2.40 2.26 2.36 2.24 2.33	0.483 0.492 0.551 0.561 0.551 0.561 0.549 0.558 0.547 0.553	20 15 15 15 15	22 17 17 17 17	Temp. Coefficient of Capacitance at VR=4.0 Vdc and T <sub>a</sub> =-40/+85°C	0.03 %/°C		
								Operating Temp. Range	-65°C/+150°C				
								Storage Temp. Range	-65°C/+150°C				
								Capacitance Tolerance					
								Standard Device	± 2 %				
								Suffix A	± 1 %				
								Suffix B	± 5 %				
								Suffix C	± 2 %				
								Suffix D	± 1 %				
								All Dimensions in Inches mm DO-7					