

# Varactor Diodes

1N5439 -  
1N5476  
1N5681 -  
1N5710

## 1N5439 to 1N5476 and 1N5681 to 1N5710

Type Number	Capacitance @ - 4Vdc 1 MHz (pF)	Min Quality Factor Q - 4Vdc f = 50 MHz	Tuning Ratio 2V to 30V		Capacitance Ratio 2V - 40V      4V - 60V		Max Working Voltage (Vdc)	Min Reverse Breakdown Voltage Ir = 10 µA (Vdc)		
			Min	Max	Min	Typ			Min	Typ
1N5439	3.3	450	2.3	3.1						
1N5440	4.7	450	2.4	3.1						
1N5441	6.8	450	2.5	3.1						
1N5442	8.2	450	2.5	3.1						
1N5443	10.0	400	2.6	3.1						
1N5444	12.0	400	2.6	3.1						
1N5445	15.0	400	2.6	3.1						
1N5446	18.0	350	2.6	3.1						
1N5447	20.0	350	2.6	3.1						
1N5448	22.0	350	2.6	3.2						
1N5449	27.0	350	2.6	3.2						
1N5450	33.0	350	2.6	3.2						
1N5451	39.0	300	2.6	3.2						
1N5452	47.0	250	2.6	3.2						
1N5453	56.0	200	2.6	3.3						
1N5454	68.0	175	2.7	3.3						
1N5455	82.0	175	2.7	3.3						
1N5456	100.0	175	2.7	3.3						
Δ 1N5461	6.8	600	2.7	3.1						
Δ 1N5462	8.2	600	2.8	3.1						
Δ 1N5463	10.0	550	2.8	3.1						
Δ 1N5464	12.0	550	2.8	3.1						
Δ 1N5465	15.0	550	2.8	3.1						
Δ 1N5466	18.0	500	2.9	3.1						
Δ 1N5467	20.0	500	2.9	3.1						
Δ 1N5468	22.0	500	2.9	3.2						
Δ 1N5469	27.0	500	2.9	3.2						
Δ 1N5470	33.0	500	2.9	3.2						
Δ 1N5471	39.0	450	2.9	3.2						
Δ 1N5472	47.0	400	2.9	3.2						
Δ 1N5473	56.0	300	2.9	3.3						
Δ 1N5474	68.0	250	2.9	3.3						
Δ 1N5475	82.0	225	2.9	3.3						
Δ 1N5476	100.0	200	2.9	3.3						
1N5681	6.8	600			3.1	3.3	40	45		
1N5682	8.2	600			3.1	3.3	40	45		
1N5683	10.0	550			3.2	3.4	40	45		
1N5684	12.0	550			3.2	3.4	40	45		
1N5685	15.0	550			3.2	3.4	40	45		
1N5686	18.0	500			3.2	3.4	40	45		
1N5687	22.0	500			3.3	3.5	40	45		
1N5688	27.0	500			3.3	3.5	40	45		
1N5689	33.0	500			3.3	3.5	40	45		
1N5690	39.0	450			3.3	3.5	40	45		
1N5691	47.0	400			3.3	3.5	40	45		
1N5692	56.0	300			3.3	3.5	40	45		
1N5693	68.0	250			3.3	3.5	40	45		
1N5694	82.0	225			3.3	3.5	40	45		
1N5695	100.0	200			3.3	3.5	40	45		
1N5696	6.8	450					2.7	2.9	60	65
1N5697	8.2	450					2.7	2.9	60	65
1N5698	10.0	400					2.8	3.0	60	65
1N5699	12.0	400					2.8	3.0	60	65
1N5700	15.0	400					2.8	3.0	60	65
1N5701	18.0	375					2.8	3.0	60	65
1N5702	22.0	375					3.2	3.4	60	65
1N5703	27.0	350					3.2	3.4	60	65
1N5704	33.0	350					3.2	3.4	60	65
1N5705	39.0	325					3.2	3.4	60	65
1N5706	47.0	300					3.2	3.4	60	65
1N5707	56.0	225					3.2	3.4	60	65
1N5708	68.0	175					3.2	3.4	60	65
1N5709	82.0	150					3.2	3.4	60	65
1N5710	100.0	150					3.2	3.4	60	65

JAN  
JANTX  
JANTXV  
versions  
available

### MAXIMUM RATINGS

Package Style  
DC Power Dissipation @ Ta = 25 °C  
Reverse Breakdown Voltage @ Ir = 10 µA  
Reverse Current  
Reverse Current (150 °C)  
Operating Temperature Range  
Storage Temperature Range  
Capacitance Tolerance:

Standard Device  
Suffix A  
Suffix B  
Suffix C

#### 1N5439-1N5476

DO-7  
400 mW  
30 V min  
0.02 µA @ 25 Vdc  
20 µA @ 25 Vdc  
- 65 to + 150 °C  
- 65 to + 150 °C  
± 20 %  
± 10 %  
± 5 %  
± 2 %

#### 1N5681-1N5710

DO-7  
400 mW  
20 nA @ MWV  
20 µA @ MWV  
- 65 to + 150 °C  
- 65 to + 150 °C  
± 20 %  
± 10 %  
± 5 %

Note:

Δ Denotes Military Approval.