

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.