


CRYSTALONCS  
2805 Veterans Highway  
Suite 14  
Ronkonkoma, N.Y. 11779



**HIGH Q**  
**SILICON VARACTRON**<sup>TM</sup>  
**VOLTAGE-VARIABLE CAPACITANCE DIODES**

1N5441  
THRU  
1N5476

**GEOMETRY 415**

**JAN AND JAN-TX VERSION AVAILABLE IN5461-76 B AND C**

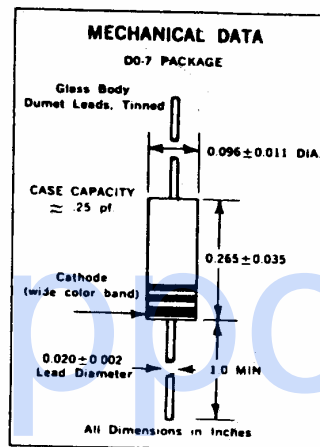
- Q @ -4V DC, 50 MHz to 600
- LOW LEAKAGE
- SPECIFIED TUNING RATIO LIMITS

**ABSOLUTE MAXIMUM RATINGS: (ALL TYPES)**

PARAMETER	SYMBOL	MAXIMUM	UNIT
Reverse Voltage	V <sub>R</sub>	30	Volts
Forward Current	I <sub>F</sub>	250	mA
Device Dissipation @ T <sub>A</sub> = 25° C	P <sub>D</sub>	400	mW
Operating Temperature Range	T <sub>opr</sub>	-65 to +175	°C
Storage Temperature Range	T <sub>stg</sub>	-65 to +200	°C

**ELECTRICAL DATA: (T<sub>A</sub> = 25° C) ALL TYPES (UNLESS OTHERWISE NOTED)**

PARAMETER	SYMBOL	Min.	Max.	Unit
Reverse Voltage Breakdown @ I <sub>R</sub> = 10 μA <sub>dc</sub>	B <sub>VR</sub>	30		Volts
Reverse Leakage Current @ V <sub>R</sub> = 25 V <sub>dc</sub>	I <sub>R</sub>		0.02	μA
Reverse Leakage Current @ V <sub>R</sub> = 25 V <sub>dc</sub> , T <sub>A</sub> = 150° C	I <sub>R</sub>		20	μA
Temp. Coefficient of Capacitance V <sub>R</sub> = 4 V <sub>dc</sub> , f = 1 MHz (-65 to +85° C)	T <sub>CC</sub>		400	ppm/°C



**ELECTRICAL CHARACTERISTICS: T<sub>A</sub> = 25° C (UNLESS OTHERWISE NOTED)**

Device Type ①	C <sub>T</sub> - Nominal Diode Capacitance V <sub>R</sub> = 4VDC, f = 1 MHz	Minimum Q (Figure of Merit) V <sub>R</sub> = 4VDC, f = 50 MHz	Tuning Ratio C <sub>2</sub> /C <sub>30</sub> , 1 MHz		Device Type ①	C <sub>T</sub> - Nominal Diode Capacitance V <sub>R</sub> = 4VDC, f = 1 MHz	Minimum Q (Figure of Merit) V <sub>R</sub> = 4VDC, f = 50 MHz	Tuning Ratio C <sub>2</sub> /C <sub>30</sub> , 1 MHz	
			Min.	Max.				Min.	Max.
1N5441	6.8	450	2.5	3.1	1N5461	6.8	600	2.7	3.1
1N5442	8.2	450	2.5	3.1	1N5462	8.2	600	2.8	3.1
1N5443	10.0	400	2.6	3.1	1N5463	10.0	550	2.8	3.1
1N5444	12.0	400	2.6	3.1	1N5464	12.0	550	2.8	3.1
1N5445	15.0	400	2.6	3.1	1N5465	15.0	550	2.8	3.1
1N5446	18.0	350	2.6	3.1	1N5466	18.0	500	2.9	3.1
1N5447	20.0	350	2.6	3.1	1N5467	20.0	500	2.9	3.1
1N5448	22.0	350	2.6	3.2	1N5468	22.0	500	2.9	3.2
1N5449	27.0	350	2.6	3.2	1N5469	27.0	500	2.9	3.2
1N5450	33.0	350	2.6	3.2	1N5470	33.0	500	2.9	3.2
1N5451	39.0	300	2.6	3.2	1N5471	39.0	450	2.9	3.2
1N5452	47.0	250	2.6	3.2	1N5472	47.0	400	2.9	3.2
1N5453	56.0	200	2.6	3.3	1N5473	56.0	300	2.9	3.3
1N5454	68.0	175	2.7	3.3	1N5474	68.0	250	2.9	3.3
1N5455	82.0	175	2.7	3.3	1N5475	82.0	225	2.9	3.3
1N5456	100.0	175	2.7	3.3	1N5476	100.0	200	2.9	3.3

① Available in five -4V C<sub>T</sub> (Capacitance) Ranges:  
No suffix letter as shown ±20%, A±10%, B±5%, C±2% and D±1%.