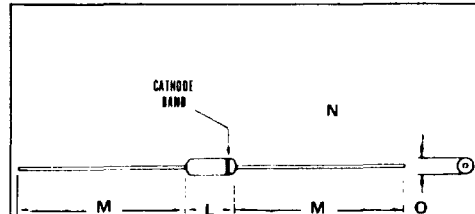


# SUPER Q<sup>®</sup> UHF/VHF ABRUPT TUNING DIODES

SERIES  
1N5681A-1N5695A  
1N5696A-1N5710A

... with capacitance tuning ratios usable over most of their operating bias voltage range - and readily matched in groups, the diodes featured here are most suitable for many RF tuning applications including electronic delay lines, preselectors, synthesizers - all with planar passivated silicon reliability.



## GENERAL SPECIFICATIONS (25<sup>0</sup> unless otherwise noted)

Rating	Symbol	Value	
Reverse Voltage	$V_R$	As Specified	
Junction Temperature	$T_j$	+175 <sup>0</sup> C Max	
Storage Temperature	$T_{stg}$	-65 <sup>0</sup> C to 200 <sup>0</sup> C	
Linear Power Derating	$P_D$	4 mW/ <sup>0</sup> C	
		DO-7	DO-14
Device Dissipation		400 mW Max	500 mW Max
Case Capacitance	$C_C$	0.2 pf Typ	0.3 pf Typ
Series Inductance	$L_S$	5 nH Typ	5 nH Typ
		1N5681A-91A 1N5695A-06A	1N5692A-95A 1N5707A-10A

Dimensions	DO-7		DO-14	
	Min	Max	Min	Max
L		0.300		0.300
M	1.000		1.000	
N	0.019	0.021	0.019	0.021
O	0.092	0.104	0.108	0.140

Dimensions in inches; to convert to millimeters, multiply by 25.4

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^0$ unless otherwise noted)

REVERSE VOLTAGE	$V_R$	$V_R = 45$ Vdc Min @ 10 $\mu$ A
REVERSE CURRENT	$I_R$	$I_R = 20$ nA Max @ 40 Vdc
$I_R @ 150^0$ C		$I_R = 20$ $\mu$ A Max @ 40 Vdc

		$V_R = 65$ Vdc Min @ 10 $\mu$ A
		$I_R = 20$ nA Mac @ 60 Vdc
		$I_R = 20$ $\mu$ A Max @ 60 Vdc

Diode Cap. (CT)* $\pm 10\%$ @ 4V/MHz	Type No.	Tuning Ratio C2/C40	Q @ 4V/50 MHz
		Min/Typ	Min
6.8	1N5681A	3.1/3.3	600
8.2	1N5682A	3.1/3.3	600
10.0	1N5683A	3.2/3.4	550
12.0	1N5684A	3.2/3.4	550
15.0	1N5685A	3.2/3.4	550
18.0	1N5686A	3.2/3.4	500
22.0	1N5687A	3.3/3.5	500
27.0	1N5688A	3.3/3.5	500
33.0	1N5689A	3.3/3.5	500
39.0	1N5690A	3.3/3.5	450
47.0	1N5691A	3.3/3.5	400
56.0	1N5692A	3.3/3.5	300
68.0	1N5693A	3.3/3.5	250
82.0	1N5694A	3.3/3.5	225
100.0	1N5695A	3.3/3.5	200

Type No.	Tuning Ratio C4/C60	Q @ 4V/50MHz
	Min/Typ	Min
1N5696A	2.7/2.9	450
1N5697A	2.7/2.9	450
1N5698A	2.8/3.0	400
1N5699A	2.8/3.0	400
1N5700A	2.8/3.0	400
1N5701A	2.8/3.0	375
1N5702A	3.2/3.4	375
1N5703A	3.2/3.4	350
1N5704A	3.2/3.4	350
1N5705A	3.2/3.4	325
1N5706A	3.2/3.4	300
1N5707A	3.2/3.4	225
1N5708A	3.2/3.4	175
1N5709A	3.2/3.4	150
1N5710A	3.2/3.4	150

To order with CT Nom  $\pm 5\%$  add Suffix "B".