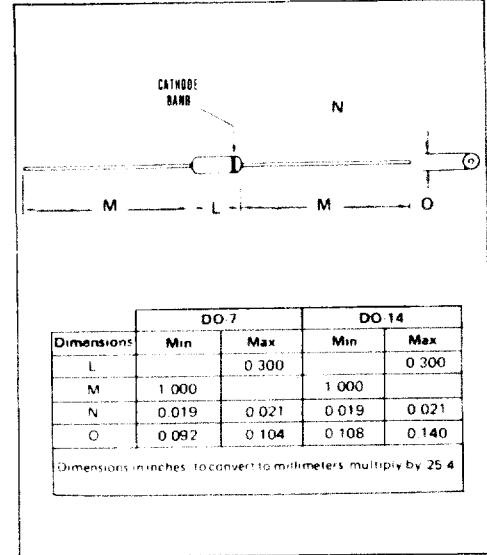


SUPER Q[®] UHF/VHF ABRUPT TUNING DIODES

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^o unless otherwise noted)

| Rating | Symbol | Value | |
|-----------------------|-----------|--|----------------------------|
| Reverse Voltage | V_R | As Specified | |
| Junction Temperature | T_J | +175 ^o C Max | |
| Storage Temperature | T_{stg} | -65 ^o C to 200 ^o C | |
| Linear Power Derating | P_D | 4 mW/ ^o C | |
| DO-7 | | | |
| 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 |

ELECTRICAL CHARACTERISTICS (TA = 25^o unless otherwise noted)

| | |
|-----------------------|----------------------------|
| REVERSE VOLTAGE V_R | $V_R = 45$ Vdc Min @ 10uA |
| REVERSE CURRENT I_R | $I_R = 20$ nA Max @ 40 Vdc |
| $I_R @ 150^oC$ | $I_R = 20$ uA Max @ 40 Vdc |

| |
|----------------------------|
| $V_R = 65$ Vdc Min @ 10 uA |
| $I_R = 20$ nA Mac @ 60 Vdc |
| $I_R = 20$ uA 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 Norm $\pm 5\%$ add Suffix "B".