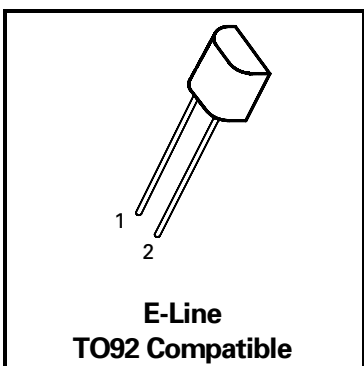
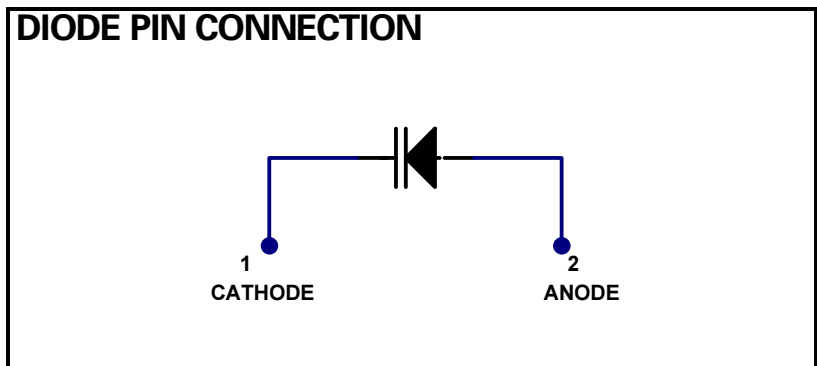


SILICON ION-IMPLANTED HYPERABRUPT TUNER DIODES

ISSUE 2 – MARCH 94

ZC820 SERIES



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | MAX | UNIT |
|---|-----------|-------------|------------------|
| Reverse Voltage | V_R | 25 | V |
| Forward Current | I_F | 200 | mA |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 300 | mW |
| Junction Temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to +200 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb}=25^\circ\text{C}$)

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNIT | CONDITIONS |
|--|--------|-----|------|------|---------------------|-----------------|
| Reverse Voltage Leakage | I_R | | | 0.02 | μA | |
| Temperature Coefficient of Capacitance | η | | 0.03 | 0.04 | $\%/^\circ\text{C}$ | $V_R=3\text{V}$ |

TUNING CHARACTERISTICS (at $T_{amb}=25^\circ\text{C}$)

| PART NO | Nominal Capacitance in pF @ $V_R=2\text{V}$, $f=1\text{MHz}$ | | | Minimum Q @ $V_R=3\text{V}$ $f=50\text{MHz}$ | Capacitance Ratio C_2/C_{20} at $f=1\text{MHz}$ | |
|---------|--|-----|------|--|--|-----|
| | MIN | NOM | MAX | | MIN | MAX |
| ZC820 | 8 | 10 | 12 | 300 | 5 | 6.5 |
| ZC821 | 12 | 15 | 18 | 300 | 5 | 6.5 |
| ZC822 | 17.6 | 22 | 26.4 | 200 | 5 | 6.5 |
| ZC823 | 26.4 | 33 | 39.6 | 200 | 5 | 6.5 |
| ZC824 | 37.6 | 47 | 56.4 | 200 | 5 | 6.5 |
| ZC825 | 54.4 | 68 | 81.6 | 100 | 5 | 6.5 |
| ZC826 | 80 | 100 | 120 | 100 | 5 | 6.5 |

*Available with 2V nominal capacitance ± 10 suffix A, $\pm 5\%$ suffix B

ZC820 SERIES

