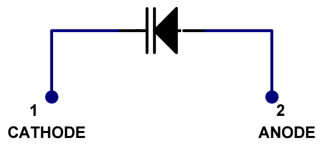
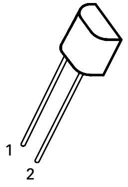
SILICON ION-IMPLANTED HYPERABRUPT TUNER DIODES

ISSUE 2 – MARCH 94

ZC820 SERIES

DIODE PIN CONNECTION





E-Line
TO92 Compatible

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°C	P_{tot}	300	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55 to +200	°C

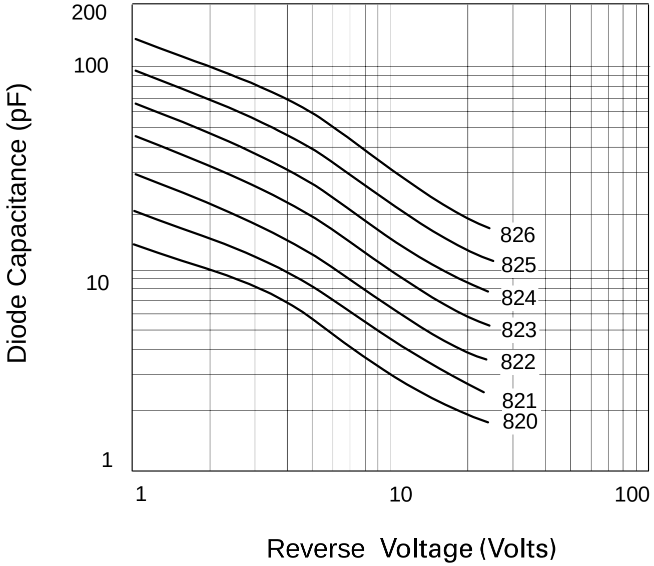
ELECTRICAL CHARACTERISTICS (at T_{amb}=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Reverse Voltage Leakage	I_R			0.02	µA	
Temperature Coefficient of Capacitance	η		0.03	0.04	%/°C	V_R=3V

TUNING CHARACTERISTICS (at T_{amb}=25°C)

PART NO	Nominal Capacitance in pF @ V_R=2V, f=1MHz			Minimum Q @ V_R=3V f=50MHz	Capacitance Ratio C_2/C_{20}, at f=1MHz	
	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, ± 5% suffix B



Diode Capacitance