

# SOT23 SILICON HYPERABRUPT VARIABLE CAPACITANCE DIODES

## ZC930 SERIES

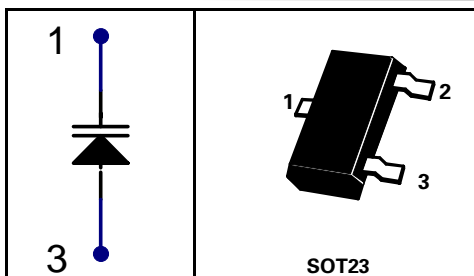
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### FEATURES

- \* VHF Tuning
- \* Octave Tuning from 0 TO 6 Volts
- \* High Reliability and Low Parasitics
- \* Low Leakage (Typically <200pA at 10V)

### APPLICATIONS

- \* Mobile Radios and Pagers
- \* Cellular Telephones



### ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Reverse Voltage	$V_R$	12	V
Forward Current	$I_F$	100	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	330	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150	$^\circ\text{C}$

\*Maximum power dissipation is calculated assuming that the device is mounted on a ceramic substrate measuring 10 x 8 x 0.6mm

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

PARAMETER	SYMBOL	MIN	MAX	UNIT	CONDITIONS
Breakdown Voltage	$V_{BR}$	12		Volts	$I_R=10\mu\text{A}$
Reverse Leakage	$I_R$		10	nA	$V_R=8\text{V}$

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

Type	Capacitance @ $V_R=1\text{V}$	Capacitance @ $V_R=2.5\text{V}$		Capacitance @ $V_R=4\text{V}$	Figure of merit minimum Q $V_R=4\text{V}$ , $f=50\text{MHz}$	Device Code Note 1
	Min. pF	Min. pF	Max. pF	Max. pF		
ZC930	8.70	4.30	5.50	2.90	200	V15
ZC931	14.50	6.50	7.80	4.00	300	V14
ZC932	17.00	8.50	10.50	5.50	200	V13
ZC933	42.00	18.00	27.00	12.00	150	V17
ZC933A	42.00	20.25	24.75	12.00	150	A17
ZC934	95.00	40.00	65.00	25.00	80	V16
ZC934A	95.00	47.25	57.75	25.00	80	A16

NOTE (1) Devices are identified by a code on the body of the device

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## TYPICAL CHARACTERISTICS

