

SOT23 SILICON VARIABLE
CAPACITANCE DIODE

ZC829A

ISSUE 2 – MAY 1997

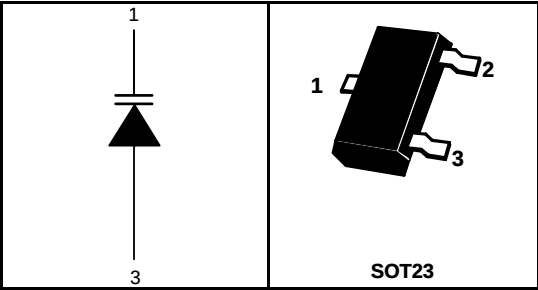
FEATURES

- * VHF to UHF operation
- * Low I_R
- * Enabling Excellent Phase Noise Performance
- * (I_R Typically <200pA at 25V)

APPLICATIONS

- * Mobile radios and Pagers
- * Cellular telephones
- * Voltage controlled Crystal Oscillators

PARTMARKING DETAIL ZC829A – J9A



ABSOLUTE MAXIMUM RATINGS.

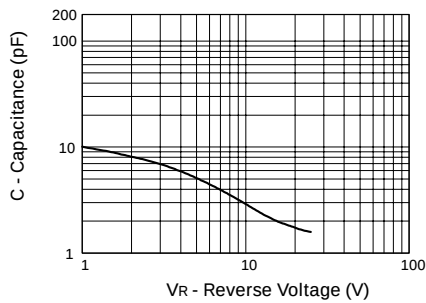
PARAMETER	SYMBOL	VALUE	UNIT
Forward Current	I_F	200	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

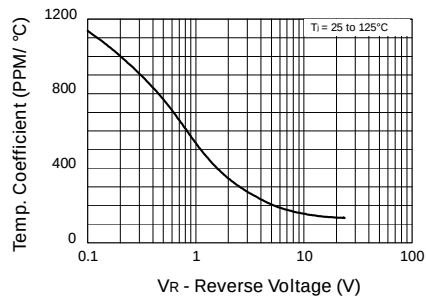
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	V_{BR}	25			V	$I_R = 10\mu A$
Reverse Leakage Current	I_R			20	nA	$V_R = 20V$
Temperature Coefficient	η			400	ppm/ $^{\circ}C$	$V_R = 3V, f=1MHz$
Diode Capacitance	C_d	7.38	8.2	9.02	pF	$V_R = 2V, f=1MHz$
Capacitance Ratio	C_d / C_d	4.3		5.8		$V_R = 2V/20V, f=1MHz$
Figure of Merit	Q	250				$V_R = 3V, f=50MHz$

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TYPICAL CHARACTERISTICS



Capacitance v Reverse Voltage



Temp. Coefficient v Reverse Voltage