SOT23 SILICON VARIABLE CAPACITANCE DIODE

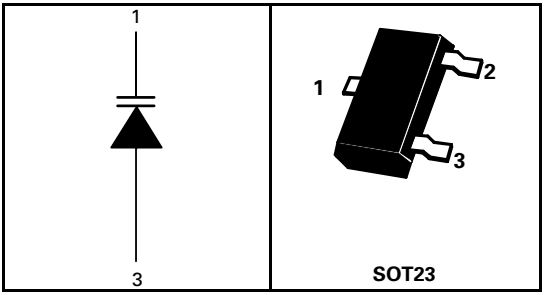
ZC829A

ISSUE 3 – JANUARY 1998

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°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	V_{BR}	25			V	I_R = 10μA
Reverse Leakage Current	I_R		0.2	10	nA	V_R = 20V
Temperature Coefficient	η			400	ppm/°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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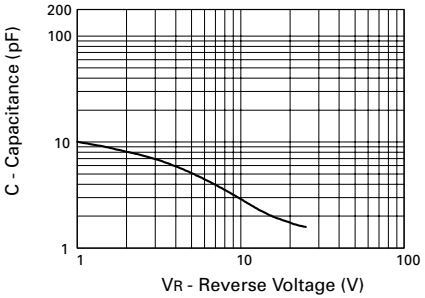
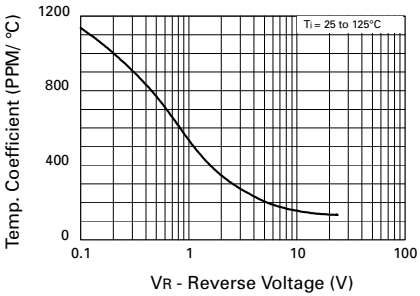
TYPICAL CHARACTERISTICS



Capacitance v Reverse Voltage



Temp. Coefficient v Reverse Voltage