

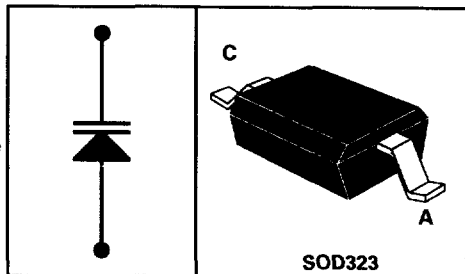
SOD323 SILICON VARIABLE CAPACITANCE DIODES

ZMV829/A/B
to
ZMV835/A/B

ISSUE 1 – NOVEMBER 1998

FEATURES

- * Close Tolerance C-V Characteristics
- * High Tuning Ratio
- * Low I_R
Enabling Excellent Phase Noise Performance
(I_R Typically <200pA at 25V)
- * Miniature surface mount package



ABSOLUTE MAXIMUM RATINGS.

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

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Reverse Breakdown Voltage	V_{BR}	25			V	$I_R=10\mu\text{A}$
Reverse Voltage Leakage	I_R		0.2	20	nA	$V_R=20\text{V}$
Temperature Coefficient of Capacitance	η		300	400	ppm/ $^\circ\text{C}$	$V_R=3\text{V}, f=1\text{MHz}$

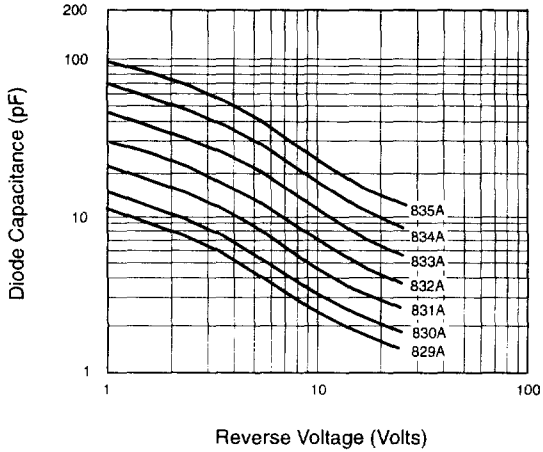
TUNING CHARACTERISTICS (at $T_{amb}=25^\circ\text{C}$)

PART NO	Nominal Capacitance (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
ZMV829A	7.38	8.2	9.02	250	4.3	5.8
ZMV830A	9.0	10.0	11.0	300	4.5	6.0
ZMV831A	13.5	15.0	16.5	300	4.5	6.0
ZMV832A	19.8	22.0	24.2	200	5.0	6.5
ZMV833A	29.7	33.0	36.3	200	5.0	6.5
ZMV834A	42.3	47.0	51.7	200	5.0	6.5
ZMV835A	61.2	68.0	74.8	100	5.0	6.5

Note:

No suffix $\pm 20\%$ (e.g. ZMV830), suffix B $\pm 5\%$ (e.g. ZMV830B)
Spice parameter data is available upon request for these devices

**ZMV829/A/B
to
ZMV835/A/B**



Diode Capacitance

Device	Partmark	Device	Partmark	Device	Partmark
ZMV829	DA	ZMV829A	AA	ZMV829B	CA
ZMV830	DB	ZMV830A	AB	ZMV830B	CB
ZMV831	DC	ZMV831A	AC	ZMV831B	CC
ZMV832	DD	ZMV832A	AD	ZMV832B	CD
ZMV833	DE	ZMV833A	AE	ZMV833B	CE
ZMV834	DF	ZMV834A	AF	ZMV834B	CF
ZMV835	DG	ZMV835A	AG	ZMV835B	CG