

# SOT23 SILICON PLANAR VARIABLE CAPACITANCE DIODE

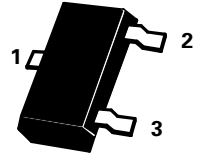
ISSUE 4 – JANUARY 1998

## FMMV105G

PIN CONFIGURATION



PARTMARKING DETAILS  
FMMV105G – 4EZ



SOT23

### ABSOLUTE MAXIMUM RATINGS.

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

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	$V_{BR}$	30			V	$I_R = 10\mu\text{A}$
Reverse current	$I_R$			10	nA	$V_R = 28\text{V}$
Series Inductance	$L_S$		3.0		nH	$f=250\text{MHz}$
Diode Capacitance Temperature Coefficient	$T_{CC}$		280		ppm/ $^{\circ}\text{C}$	$V_R = 3\text{V}, f=1\text{MHz}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Diode Capacitance	$C_d$	1.8		2.8	pF	$V_R = 25\text{V}, f=1\text{MHz}$
Capacitance Ratio	$C_d / C_d$	4.0		6.0		$V_R = 3\text{V}/25\text{V}, f=1\text{MHz}$
Figure of MERIT	Q	250	350			$V_R = 3\text{V}, f=50\text{MHz}$

Spice parameter data is available upon request for this device