

SOT23 SILICON PLANAR VARIABLE CAPACITANCE DIODE

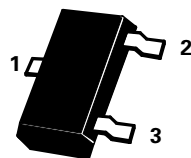
ISSUE 4 – JANUARY 1998

FMMV109

PIN CONFIGURATION



PARTMARKING DETAIL
FMMV109 – 4A



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	$V_R = 25\text{V}$
Series Inductance	L_S		3.0		nH	$f=250\text{MHz}$
Diode Capacitance Temperature Coefficient	T_{CC}		280		ppm/ $^{\circ}\text{C}$	$V_R = 3\text{V}, f=1\text{MHz}$
Case Capacitance	C_C		0.1		pF	$f=1\text{MHz}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Diode Capacitance	C_d	26		32	pF	$V_R = 3\text{V}, f=1\text{MHz}$
Capacitance Ratio	C_d / C_d	5.0		6.5		$V_R = 3\text{V}/25\text{V}, f=1\text{MHz}$
Figure of MERIT	Q	200	250			$V_R = 3\text{V}, f=50\text{MHz}$

Spice parameter data is available upon request for this device