

# SOT23 SILICON PLANAR VARIABLE CAPACITANCE DIODE

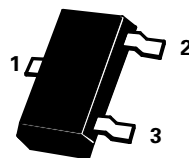
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## FMMV3102

PIN CONFIGURATION



PARTMARKING DETAIL  
FMMV3102 – 4C



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	$C_d$	20		25	pF	$V_R = 3\text{V}$ , $f=1\text{MHz}$
Capacitance Ratio	$C_d / C_d$	4.5				$V_R = 3\text{V}/25\text{V}$ , $f=1\text{MHz}$
Figure of MERIT	Q	200	300			$V_R = 3\text{V}$ , $f=50\text{MHz}$

Spice parameter data is available upon request for this device