SOT23 SILICON PLANAR VARIABLE CAPACITANCE DIODE

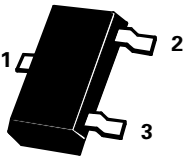
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BBY31

PIN CONFIGURATION



PARTMARKING DETAIL
BBY31 – S1



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
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 unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	V_{BR}	28.0			V	I_R = 10μA
Reverse current	I_R			10 1.0	nA μA	V_R = 28V V_R = 28V, T_{amb} = 85°C

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Diode Capacitance	C_d	 1.8	17.5 11.5	 2.8	pF pF pF	V_R = 1V, f=1MHz V_R = 3V, f=1MHz V_R = 25V, f=1MHz
Capacitance Ratio	C_d / C_d		5.0			V_R = 3V/25V, f=1MHz
Series Resistance	r_d			1.2	Ω	f=470MHz at the value of V_R at which C_d=9pF

Spice parameter data is available upon request for this device