



BBY56-02W

Silicon Tuning Diode Preliminary data

Application

- VCO、 VCO'S mobile communications equipment
- FM and AFC in communication set

Features

- Excellent linearity
- Capacitance ratio: $C_{0.3V}/C_{4.7V}=10(\text{Min})$
- Low series resistance: $r_s \leq 0.6\Omega$
- package:SOD523



SOD-523

Maximum ratings

Parameter	Symbol	Rating		Unit
		Min	Max	
Assignment Temperature Range	T_{amb}	-55	100	°C
Storage Temperature Range	T_{atg}	-55	125	°C
Maximum Reverse voltage	V_{RM}		10	V
Junction Temperature	T_j		125	°C
Forward voltage($I_F=20\text{mA}$)	V_F		1	V

Electrical Characteristics(at $T_{amb}=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Diode capacitance	C_1	$V_{R1}=1\text{V}$	36		43.5	PF
Diode capacitance	C_2	$V_{R2}=2\text{V}$	22		25	PF
Diode capacitance	C_3	$V_{R2}=4.7\text{V}$	13.8		17.5	PF
Capacitance ratio	C_1/C_2	$V_{R1}=0.3\text{V}, V_{R2}=4.7\text{V}$	2.15	2.53		
Reverse Current	I_R	$V_R=6\text{V}$			5	nA
series resistance	r_s	$F=470\text{MHz}, C_0=14\text{pF}$		0.35	0.6	Ω