

● Features:

- Very Low Operating Voltage (1 to 4.5 V)
- Excellent Linearity (CV Curve)
- Large Capacitance Ratio
- Very Small URD Surface Mount Package
- Very Small Capacitance Deviation at Tape/Reel

AITE VARIABLE CAPACITANCE DIODE SILICON TYPE

● Application

- communications equipment
- voltage controlled oscillator

● Features

- Excellent linearity
- Capacitance ratio: $C_{1V}/C_{5.0V} > 5$
- Low series resistance: $r_s \leq 0.8 \Omega$
- package: SOD-323/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}		16	V
Junction Temperature	T_j		125	°C
Forward voltage($I_F=20mA$)	V_F		1	V

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Diode capacitance	C_1	$V_{R1}=1V$	30. 16	35. 60	40. 99	PF
Diode capacitance	C_2	$V_{R2}=4.5v$	6.2	7.7	9.2	PF
Capacitance ratio	C_1/C_2	$V_{R1}=1V, V_{R2}=5V$	5			
Reverse Current	I_R	$V_R=10V$			50	nA
Forward Voltage	V_F	$I_F=20mA$			1	V
series resistance	r_s	$F=470MHz, C_0=14pF$		0.8	1.0	Ω