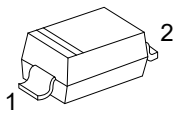
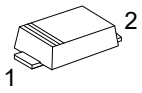
BB179

DIODE

UHF VARIABLE CAPACITANCE DIODE



SOD-323



SOD-523

■ DESCRIPTION

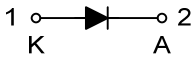
The UTC **BB179** is a planar technology variable capacitance diode providing the designers excellent matching performance, low series resistance and great linearity.

The UTC **BB179** is suitable for VCO (Voltage Controlled Oscillators) and Electronic tuning in UHF (Very High Frequency) tuners.

■ FEATURES

* Excellent matching to 2% DMA
* Low series resistance.
* Great linearity
* C28: 2.1 pF; ratio: 9

■ SYMBOL



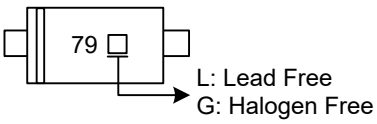
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
BB179L-CB2-R	BB179G-CB2-R	SOD-323	K	A	Tape Reel
BB179L-CC2-R	BB179G-CC2-R	SOD-523	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

BB179G-CB2-R (1) Packing Type (2) Package Type (3) Green Package	(1) R: Tape Reel (2) CB2: SOD-323, CC2 : SOD-523 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Continuous Reverse Voltage	V_R	30	V
Peak Reverse Voltage (In series with a 10 kΩ resistor)	V_{RM}	35	V
Continuous Forward Current	I_F	20	mA
Operating Junction Temperature	T_J	-40 ~ +125	°C
Storage Temperature	T_{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_J=25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Current	I_R	V_R=30V			10	nA
		V_R=30V, T_J=85°C			200	nA
Diode Series Resistance	r_S	f=470MHz V_R is the value at which C_d=9pF		0.6	0.75	Ω
Diode Capacitance	C_d	V_R=1V, f=1MHz	18.22		23	pF
		V_R=28V, f=1MHz			5	pF
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(2V)}}$	f=1MHz		1.27		
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(28V)}}$	f=1MHz			6	
Capacitance Ratio	$\frac{C_{d(25V)}}{C_{d(28V)}}$	f=1MHz		1.05		
Capacitance Matching	$\frac{\Delta C_d}{C_d}$	V_R=1~28V,inasequenceof15diodes(gliding)			2	%