



BB179

DIODE

UHF VARIABLE CAPACITANCE DIODE

DESCRIPTION

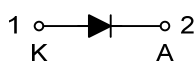
The UTC **BB179** is a planar technology variable capacitance diode providing the designers excellent matching performance, low series resistance and great linearity.

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



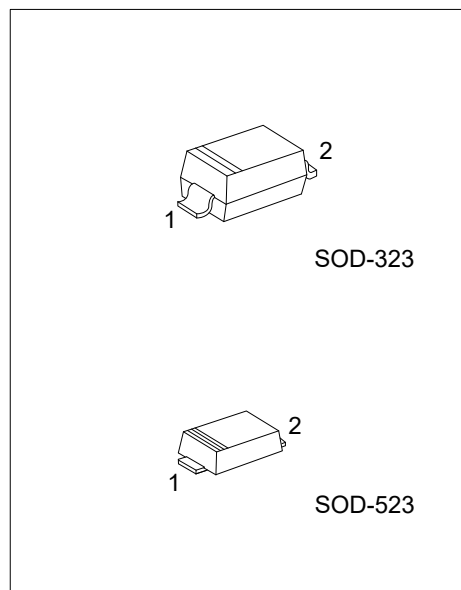
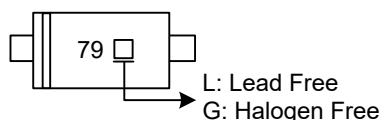
ORDERING INFORMATION

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	(1) R: Tape Reel
(2) Package Type	(2) CB2: SOD-323, CC2 : SOD-523
(3) Green Package	(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 k Ω 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 ($T_J=25^\circ\text{C}$ unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Current	I_R	$V_R=30\text{V}$			10	nA
		$V_R=30\text{V}, T_J=85^\circ\text{C}$			200	nA
Diode Series Resistance	r_s	$f=470\text{MHz}$ V_R is the value at which $C_d=9\text{pF}$		0.6	0.75	Ω
Diode Capacitance	C_d	$V_R=1\text{V}, f=1\text{MHz}$	18.22		23	pF
		$V_R=28\text{V}, f=1\text{MHz}$			5	pF
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(2V)}}$	$f=1\text{MHz}$		1.27		
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(28V)}}$	$f=1\text{MHz}$			6	
Capacitance Ratio	$\frac{C_{d(25V)}}{C_{d(28V)}}$	$f=1\text{MHz}$		1.05		
Capacitance Matching	$\frac{\Delta C_d}{C_d}$	$V_R=1\sim 28\text{V}$, in a sequence of 15 diodes (gliding)			2	%

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