



BB179

Preliminary

DIODE

UHF VARIABLE CAPACITANCE DIODE

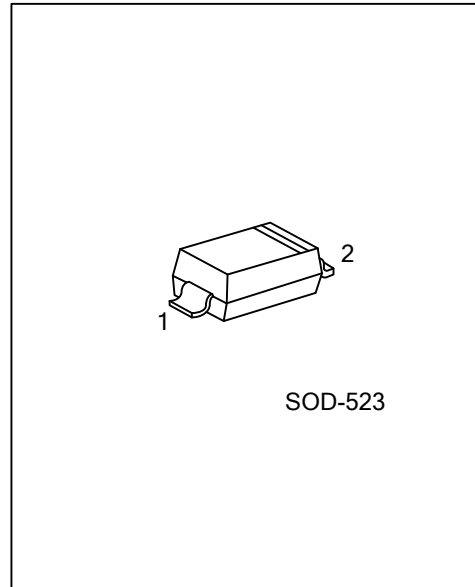
DESCRIPTION

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



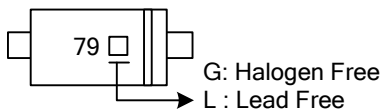
ORDERING INFORMATION

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

Note: Pin Assignment: A: Anode, K: Cathode

<p>BB179L-CC2-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Halogen Free 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) CC2 : SOD-523 (3) Halogen 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
Storage Temperature	T_{STG}	-40~+150	$^{\circ}\text{C}$
Operating Junction Temperature	T_J	-40~+125	$^{\circ}\text{C}$

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		21.26	pF
		$V_R = 28\text{ V}, f = 1\text{ MHz}$	1.951		2.225	pF
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(2V)}}$	$f = 1\text{ MHz}$		1.27		
Capacitance Ratio	$\frac{C_{d(1V)}}{C_{d(28V)}}$	$f = 1\text{ MHz}$	8.45		10.9	
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	%

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.