



VHF Variable Capacitance Diode

Features

- Excellent linearity
- Ultra small plastic SMD package
- C28 : 2.1 pF; ratio: 9
- Low series resistance

Applications

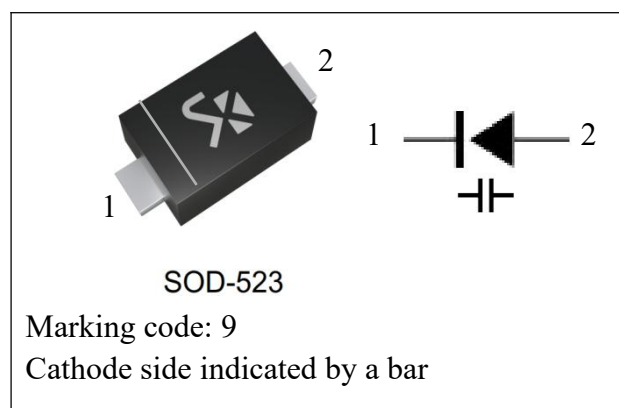
- Electronic tuning in UHF television tuners
- Voltage controlled oscillators(VCO)

Description

The BB179 is a planar technology variable capacitance diode, in a SOD-523 Package. The excellent matching performance is achieved by gliding matching and a direct matching assembly procedure.

Pinning

	Description
1	Cathode
2	anode



Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit
Continuous Reverse Voltage	V_R	30	V
Peak Reverse Voltage ⁽¹⁾	V_{RM}	35	V
Continuous Forward Current	I_F	20	mA
Storage Temperature Range	T_{STG}	-55~+150	°C
Operating Junction Temperature	T_J	-55~+125	°C

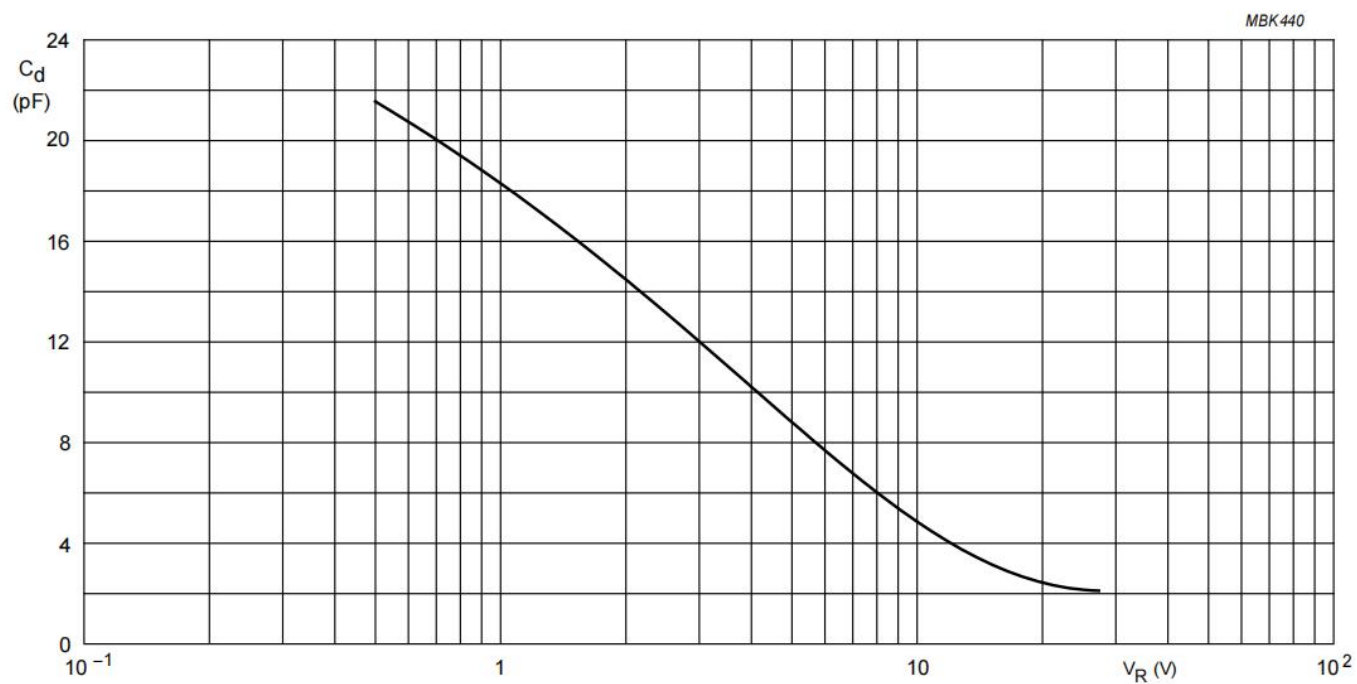
Note:(1).The test needs to be done with a 10kΩ resistor in series

Electrical Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	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
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
Capacitance	$C_{d(1V)}$	$V_R=1\text{V}, f=1\text{MHz}$	18.22	-	21.26	pF
	$C_{d(28V)}$	$V_R=28\text{V}, f=1\text{MHz}$	1.951	-	2.225	pF
Capacitance Ratio	$C_{d(1V)}/C_{d(28V)}$	$f=1\text{MHz}$	8.45	-	10.9	
Capacitance Ratio	$C_{d(25V)}/C_{d(28V)}$	$f=1\text{MHz}$	-	1.05	-	



Typical Characteristics



$f = 1 \text{ MHz}$; $T_j = 25 \text{ }^\circ\text{C}$.

Fig.1 Diode capacitance as a function of reverse voltage; typical values.

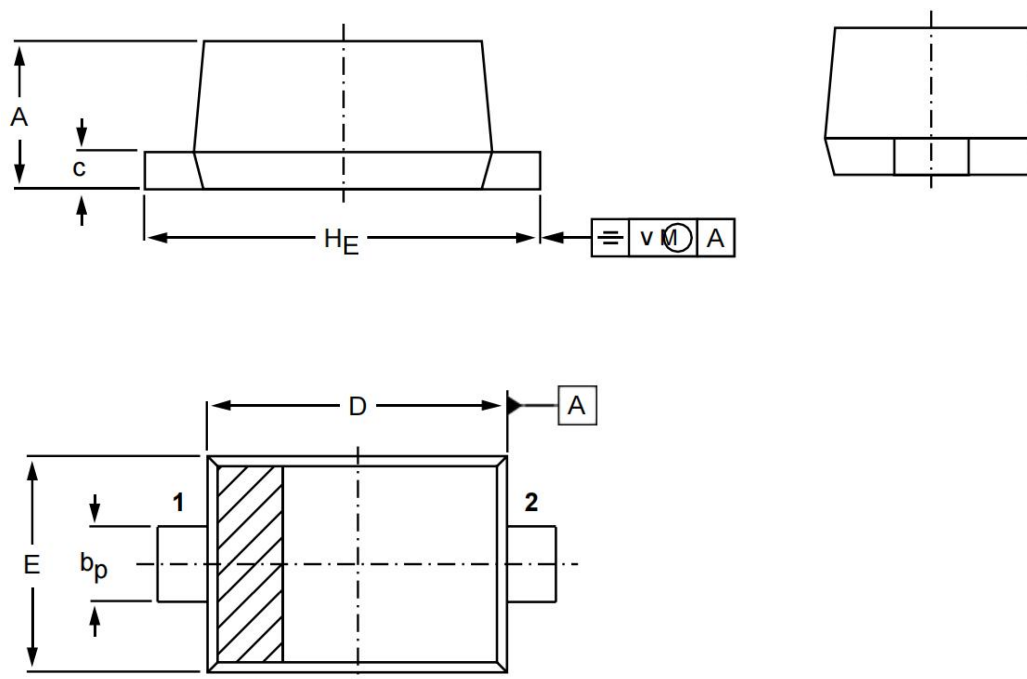


BB179

Package Information

SOD-523

Dimensions in mm



Dimensions(mm are the original dimensions)

UNIT	A	b _p	c	D	E	H _E	v
mm	0.7 0.5	0.35 0.25	0.2 0.1	1.3 1.1	0.9 0.7	1.7 1.5	0.15



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