

UHF variable capacitance diode

BB135

NAPC/PHILIPS SEMICONDUCTOR

63E D

FOR DETAILED INFORMATION SEE THE LATEST ISSUE OF HANDBOOK SC01 OR DATASHEET

DESCRIPTION

The BB135 is a silicon, double-implanted variable capacitance diode in planar technology, intended for use in UHF tuners. It has a high linearity and is encapsulated in the ultra-small plastic SMD package, SOD323.

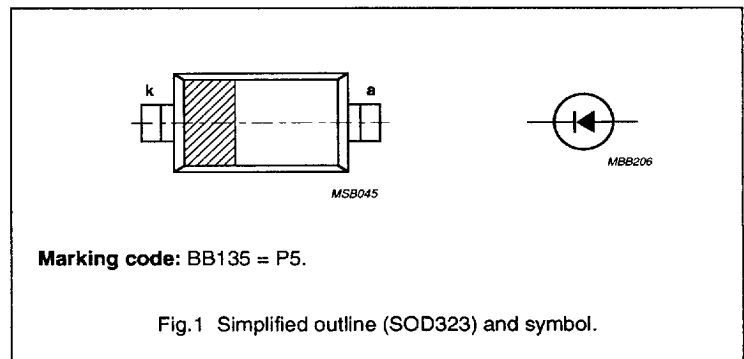
The diodes are delivered on tape (3000 or 10 000 pieces), without gaps.

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_R	continuous reverse voltage		–	30	V
I_R	reverse current	$V_R = 30$ V	–	10	nA
C_d	diode capacitance	$V_R = 0.5$ V; $f = 1$ MHz	17.5	21	pF
		$V_R = 28$ V; $f = 1$ MHz	1.7	2.1	pF
$C_{0.5 \sqrt{C_{28 \text{ V}}}}$	capacitance ratio	$f = 1$ MHz	8.9	12	
R_s	series resistance	$f = 470$ MHz; note 1	–	0.75	Ω

Note

- V_R is the value at which $C_d = 9$ pF.



LIMITING VALUES

In accordance with the Absolute Maximum System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_R	continuous reverse voltage		–	30	V
V_{RM}	reverse voltage	peak value	–	30	V
I_F	forward current	DC value	–	20	mA
T_{stg}	storage temperature range		–55	150	$^{\circ}\text{C}$
T_{amb}	ambient operating temperature range		–55	125	$^{\circ}\text{C}$