

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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BC184B  
SILICON  
NPN TRANSISTOR



[www.centralsemi.com](http://www.centralsemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BC184B is a silicon NPN transistor designed for low level, low noise amplifier applications.



**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS: (TA=25°C)**

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V <sub>CBO</sub>	V <sub>CB</sub> =30V			45	V
V <sub>CEO</sub>	V <sub>EB</sub> =4.0V			30	V
V <sub>EBO</sub>				6.0	V
I <sub>C</sub>	I <sub>C</sub> =10μA			200	mA
P <sub>D</sub>				300	mW
T <sub>J</sub> , T <sub>stg</sub>				-65 to +150	°C
Θ <sub>JA</sub>				417	°C/W

**ELECTRICAL CHARACTERISTICS: (TA=25°C)**

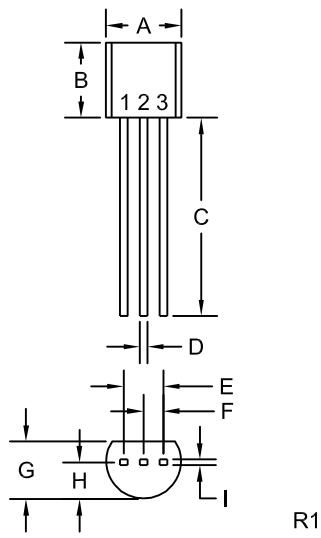
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =30V			15	nA
I <sub>EBO</sub>	V <sub>EB</sub> =4.0V			15	nA
BV <sub>CBO</sub>	I <sub>C</sub> =10μA	45			V
BV <sub>CEO</sub>	I <sub>C</sub> =2.0mA	30			V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	6.0			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA			0.25	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5.0mA			0.6	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5.0mA			1.2	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10μA		0.52		V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100μA		0.55		V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA	0.55		0.7	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA		0.68		V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10μA	100			
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA	250			
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100mA	130			
h <sub>fe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA, f=1.0kHz	240		500	
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		3.0	5.0	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=1.0MHz		9.5		pF
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=100MHz	280			MHz
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =200μA, R <sub>G</sub> =2.0kΩ, f=10Hz to 10kHz		4.0		dB

R0 (11-October 2016)

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TO-92 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES	MILLIMETERS	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100	-	2.54	-
F	0.050	-	1.27	-
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015	-	0.38	-

TO-92 (REV: R1)

LEAD CODE:

- 1) Collector
- 2) Base
- 3) Emitter

MARKING: FULL PART NUMBER

R0 (11-October 2016)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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