

BC184B

SILICON
NPN TRANSISTOR



TO-92 CASE



www.centrasemi.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: ($T_A=25^\circ\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CBO} 45
 V_{CEO} 30
 V_{EBO} 6.0
 I_C 200
 P_D 300
 T_J, T_{stg} -65 to +150
 Θ_{JA} 417

UNITS

V
V
V
mA
mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$)

SYMBOL	TEST CONDITIONS
I_{CBO}	$V_{CB}=30\text{V}$
I_{EBO}	$V_{EB}=4.0\text{V}$
BV_{CBO}	$I_C=10\mu\text{A}$
BV_{CEO}	$I_C=2.0\text{mA}$
BV_{EBO}	$I_E=10\mu\text{A}$
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$
$V_{BE(SAT)}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=2.0\text{mA}$
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$
h_{FE}	$V_{CE}=5.0\text{V}, I_C=2.0\text{mA}$
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$
h_{fe}	$V_{CE}=5.0\text{V}, I_C=2.0\text{mA}, f=1.0\text{kHz}$
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$
NF	$V_{CE}=5.0\text{V}, I_C=200\mu\text{A}, R_G=2.0\text{k}\Omega, f=10\text{Hz to } 10\text{kHz}$

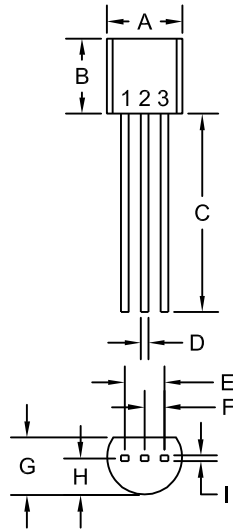
MIN	TYP	MAX	UNITS
		15	nA
		15	nA
45			V
30			V
6.0			V
		0.25	V
		0.6	V
		1.2	V
	0.52		V
	0.55		V
0.55		0.7	V
	0.68		V
100			
250			
130			
240		500	
	3.0	5.0	pF
	9.5		pF
	280		MHz
		4.0	dB

R0 (11-October 2016)

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TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	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



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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