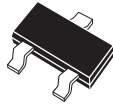


BCW61B  
BCW61C  
BCW61D

**SURFACE MOUNT  
PNP SILICON TRANSISTOR**



**SOT-23 CASE**

# Central<sup>TM</sup> Semiconductor Corp.

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR BCW61B Series types are PNP Silicon Transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low level, low noise applications.

**MARKING CODES: BCW61B : BB  
BCW61C : BC  
BCW61D : BD**

## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

	SYMBOL		UNITS
Collector-Emitter Voltage	V <sub>CEO</sub>	32	V
Collector-Base Voltage	V <sub>CBO</sub>	32	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	V
Collector Current	I <sub>C</sub>	100	mA
Power Dissipation	P <sub>D</sub>	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	Θ <sub>JA</sub>	357	°C/W

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

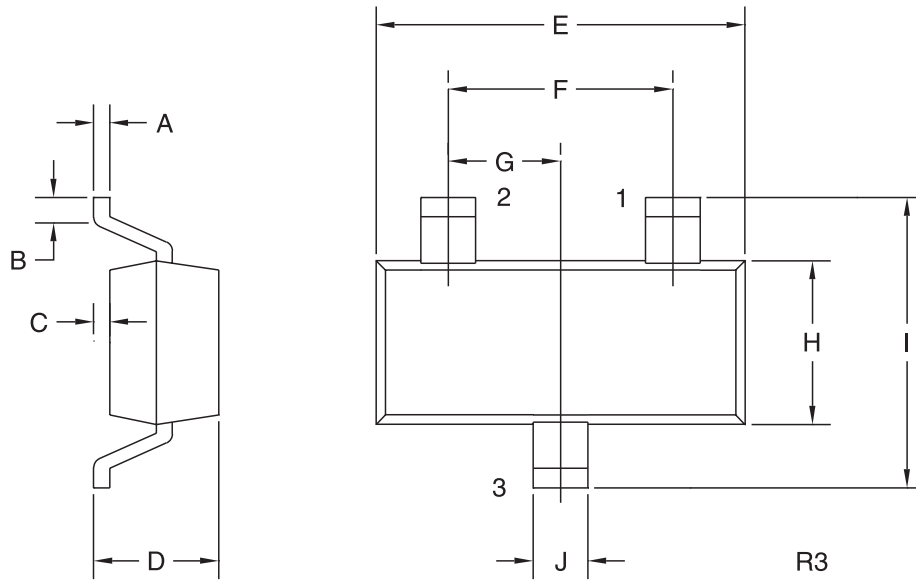
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CES</sub>	V <sub>CE</sub> =32V		20	nA
I <sub>CES</sub>	V <sub>CE</sub> =32V, T <sub>A</sub> =150°C		20	μA
BV <sub>CEO</sub>	I <sub>C</sub> =2.0mA	32		V
BV <sub>EBO</sub>	I <sub>E</sub> =1.0μA	5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =250μA		0.25	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =1.25mA		0.55	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =250μA	0.60	0.85	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =1.25mA	0.68	1.05	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA	0.60	0.75	V
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>C</sub> =0, f=1.0MHz		6.0	pF
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =0.2mA, R <sub>S</sub> =2.0kΩ, f=1.0kHz, BW=200Hz	6.0		dB
t <sub>on</sub>	V <sub>CC</sub> =10V, I <sub>C</sub> =10mA, R <sub>L</sub> =990Ω, I <sub>B1</sub> =I <sub>B2</sub> =1.0mA		150	ns
t <sub>on</sub>	V <sub>CC</sub> =10V, I <sub>C</sub> =10mA, R <sub>L</sub> =990Ω, I <sub>B1</sub> =I <sub>B2</sub> =1.0mA		800	ns

		BCW61B		BCW61C		BCW61D	
		MIN	MAX	MIN	MAX	MIN	MAX
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10μA	30		40		100	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA	140	310	250	460	380	630
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =50mA	80		100		100	
h <sub>fe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA, f=1.0kHz	175	350	250	500	350	700

R1 (20-February 2003)

**SURFACE MOUNT  
PNP SILICON TRANSISTOR**

**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

**MARKING CODES:** BCW61B : BB  
BCW61C : BC  
BCW61D : BD

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)