

# Silicon PNP Transistor

## **CBCX69**

25V / 1A

# DATASHEET

OEM – Central Semiconductor Corp.

Source: Central Databook 2004

CBCX68 NPN  
 CBCX69 PNP  
 SURFACE MOUNT  
 COMPLEMENTARY SILICON  
 SMALL SIGNAL TRANSISTORS



# Central™

Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CBCX68, CBCX69 types are complementary silicon transistor manufactured by epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring high current capability.

**MARKING CODE: FULL PART NUMBER**

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

	SYMBOL		UNITS
Collector-Emitter Voltage	V <sub>CES</sub>	25	V
Collector-Emitter Voltage	V <sub>CEO</sub>	20	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	V
Collector Current	I <sub>C</sub>	1.0	A
Collector Current-Peak	I <sub>CM</sub>	2.0	A
Base Current	I <sub>B</sub>	100	mA
Base Current Peak	I <sub>BM</sub>	200	mA
Power Dissipation	P <sub>D</sub>	1.2	W
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Temperature	θ <sub>JA</sub>	104	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =25V			100	nA
I <sub>CBO</sub>	V <sub>CB</sub> =25V, T <sub>A</sub> =150°C			10	µA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V			10	µA
BV <sub>CBO</sub>	I <sub>C</sub> =10µA	25			V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	20			V
BV <sub>EBO</sub>	I <sub>E</sub> =1.0µA	5.0			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =1.0A, I <sub>B</sub> =100mA			0.5	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =5.0mA		0.6		V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =1.0A			1.0	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	50			
h <sub>FE</sub>	V <sub>CE</sub> =1.0, I <sub>C</sub> =500mA	85		375	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =1.0A	60			
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=20MHz	65			MHz

For Typical Electrical Characteristic Data for CBCX68 & CBCX69, please see Process 314 & 714 on pages 844 & 871.

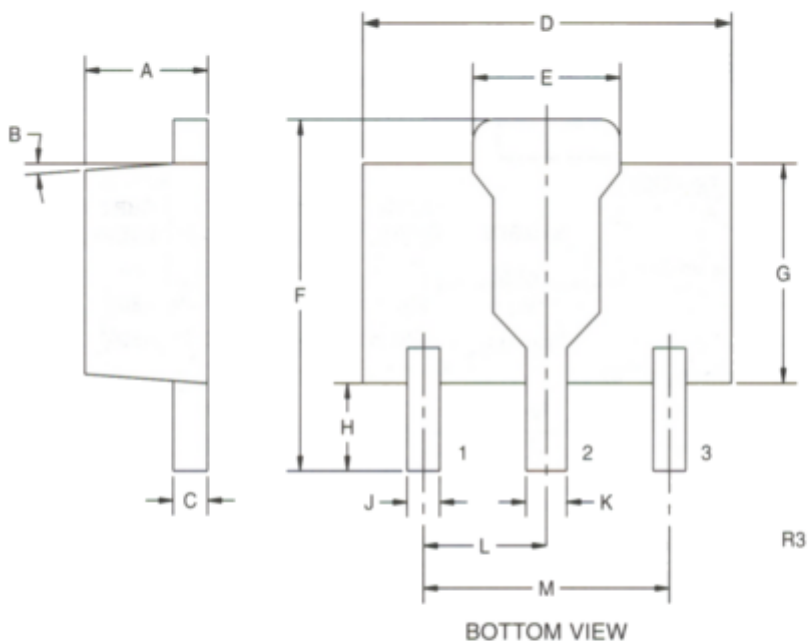
R6 (20-February 2003)



CBCX68 NPN  
CBCX69 PNP

**SURFACE MOUNT  
COMPLEMENTARY SILICON  
SMALL SIGNAL TRANSISTORS**

**SOT-89 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.016	0.018	0.40	0.46
D	0.173	0.185	4.40	4.70
E	0.070	0.074	1.79	1.87
F	0.146	0.177	3.70	4.50
G	0.094	0.106	2.40	2.70
H	0.028	0.051	0.70	1.30
J	0.015	0.019	0.38	0.48
K	0.019	0.023	0.48	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R3)

R6 (20-February 2003)