

Silicon NPN Transistor

CBCX68

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_A=25°C)

	SYMBOL		UNITS
Collector-Emitter Voltage	V _{CES}	25	V
Collector-Emitter Voltage	V _{CEO}	20	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	1.0	A
Collector Current-Peak	I _{CM}	2.0	A
Base Current	I _B	100	mA
Base Current Peak	I _{BM}	200	mA
Power Dissipation	P _D	1.2	W
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Temperature	θ _{JA}	104	°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =25V			100	nA
I _{CBO}	V _{CB} =25V, T _A =150°C			10	µA
I _{EBO}	V _{EB} =5.0V			10	µA
BV _{CBO}	I _C =10µA	25			V
BV _{CEO}	I _C =10mA	20			V
BV _{EBO}	I _E =1.0µA	5.0			V
V _{CE(SAT)}	I _C =1.0A, I _B =100mA			0.5	V
V _{BE(ON)}	V _{CE} =10V, I _C =5.0mA		0.6		V
V _{BE(ON)}	V _{CE} =1.0V, I _C =1.0A			1.0	V
h _{FE}	V _{CE} =10V, I _C =500mA	50			
h _{FE}	V _{CE} =1.0, I _C =500mA	85		375	
h _{FE}	V _{CE} =1.0V, I _C =1.0A	60			
f _T	V _{CE} =5.0V, I _C =10mA, f=20MHz	65			MHz

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

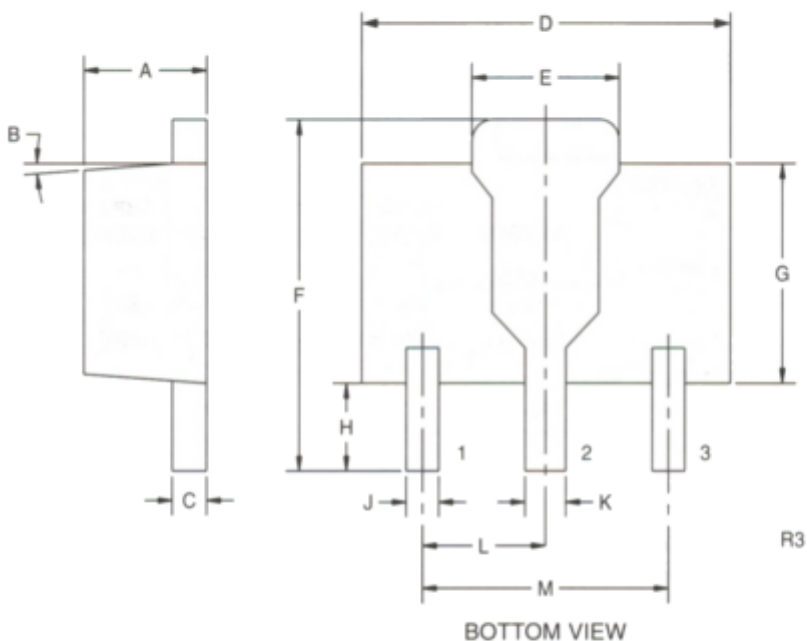
R6 (20-February 2003)



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)