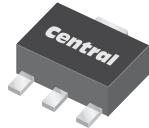


CBCX68 SERIES NPN
CBCX69 SERIES PNP

SURFACE MOUNT
COMPLEMENTARY SILICON
SMALL SIGNAL TRANSISTORS



SOT-89 CASE



www.centrasemi.com

DESCRIPTION:

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

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

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

SYMBOL

V_{CES} 25
 V_{CEO} 20
 V_{EBO} 5.0
 I_C 1.0
 I_{CM} 2.0
 I_B 100
 I_{BM} 200
 P_D 1.2
 T_J, T_{stg} -65 to +150
 θ_{JA} 104

UNITS

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

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=25\text{V}$			100	nA
I_{CBO}	$V_{CB}=25\text{V}, T_A=150^\circ\text{C}$			10	μA
I_{EBO}	$V_{EB}=5.0\text{V}$			10	μA
BV_{CBO}	$I_C=10\mu\text{A}$	25			V
BV_{CEO}	$I_C=10\text{mA}$	20			V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0			V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$			0.5	V
$V_{BE(ON)}$	$V_{CE}=10\text{V}, I_C=5.0\text{mA}$		0.6		V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$			1.0	V
h_{FE}	$V_{CE}=10\text{V}, I_C=5.0\text{mA}$	50			
h_{FE}	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$ (CBCX68, CBCX69)	85		375	
h_{FE}	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$ (CBCX68-16, CBCX69-16)	100		250	
h_{FE}	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$ (CBCX68-25, CBCX69-25)	160		400	
h_{FE}	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	60			
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=20\text{MHz}$	65			MHz

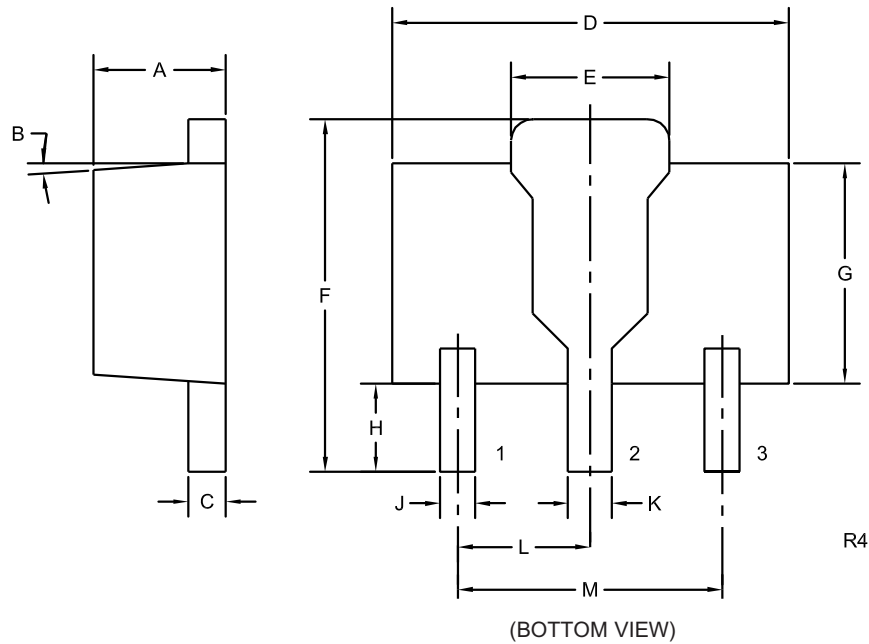
R11 (23-February 2012)

CBCX68 SERIES NPN
 CBCX69 SERIES PNP

SURFACE MOUNT
 COMPLEMENTARY SILICON
 SMALL SIGNAL TRANSISTORS



SOT-89 CASE - MECHANICAL OUTLINE



LEAD CODE:
 1) EMITTER
 2) COLLECTOR
 3) BASE

MARKING:
 FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R11 (23-February 2012)



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- Custom bar coding for shipments
- Custom product packing

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- Free quick ship samples (2nd day air)
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- SPICE models
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- Customer specific screening
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- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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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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