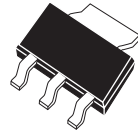


**CBCP68 NPN  
CBCP69 PNP**

**SILICON COMPLEMENTARY  
SMALL SIGNAL TRANSISTORS**



**SOT-223 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR, CBCP68, CBCP69 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 CODE: FULL PART NUMBER**

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

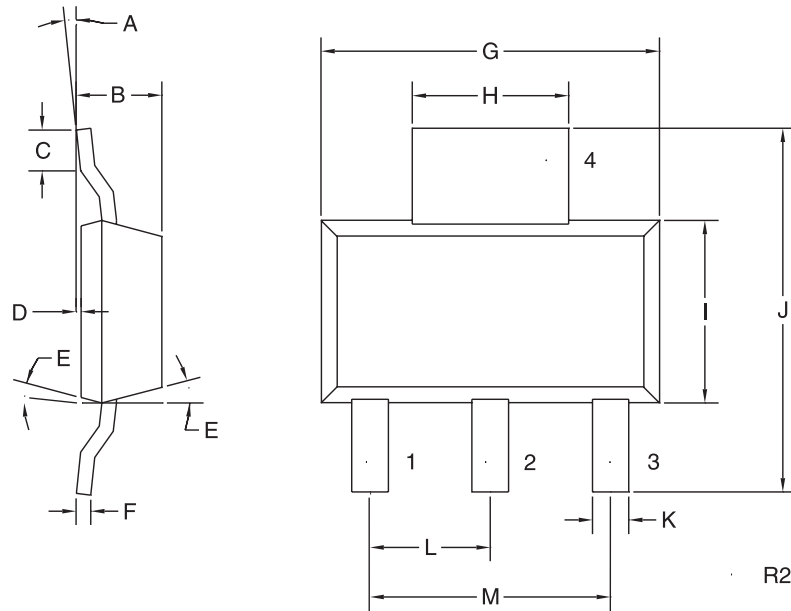
	SYMBOL		UNITS
Collector-Emitter Voltage	$V_{CES}$	25	V
Collector-Emitter Voltage	$V_{CEO}$	20	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	1.0	A
Collector Current-Peak	$I_{CM}$	2.0	A
Base Current	$I_B$	100	mA
Base Current Peak	$I_{BM}$	200	mA
Power Dissipation	$P_D$	2.0	W
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\Theta_{JA}$	62.5	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=25\text{V}$			10	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=25\text{V}, T_A=150^{\circ}\text{C}$			1.0	mA
$I_{EBO}$	$V_{EB}=5.0\text{V}$			10	$\mu\text{A}$
$BV_{CBO}$	$I_C=10\mu\text{A}$	25			V
$BV_{CEO}$	$I_C=10\text{mA}$	20			V
$BV_{EBO}$	$I_E=1.0\mu\text{A}$	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			
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=500\text{mA}$	85		375	
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	60			
$f_T$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=20\text{MHz}$	65			MHz
$C_{ob}$	$V_{CB}=5.0\text{V}, I_E=0, f=450\text{kHz}$		25		pF

R3 ( 26-September 2002)

MECHANICAL OUTLINE - SOT-223



**LEAD CODE:**

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

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	7°	0°	7°
B	0.063	0.067	1.60	1.70
C	0.022		0.55	
D	0.001	0.004	0.03	0.10
E	15°		15°	
F	0.009	0.013	0.23	0.33
G	0.248	0.264	6.30	6.71
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.71
J	0.264	0.287	6.71	7.29
K	0.024	0.031	0.61	0.79
L	0.091		2.31	
M	0.181		4.60	

SOT-223 (REV: R2)

R3 ( 26-September 2002)