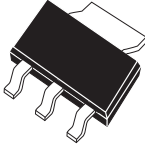


**CBCP68 NPN**  
**CBCP69 PNP**

**SILICON COMPLEMENTARY**  
**SMALL SIGNAL TRANSISTORS**



**SOT-223 CASE**

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBCP68, CBCP69 types are complementary silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring high current capability.

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

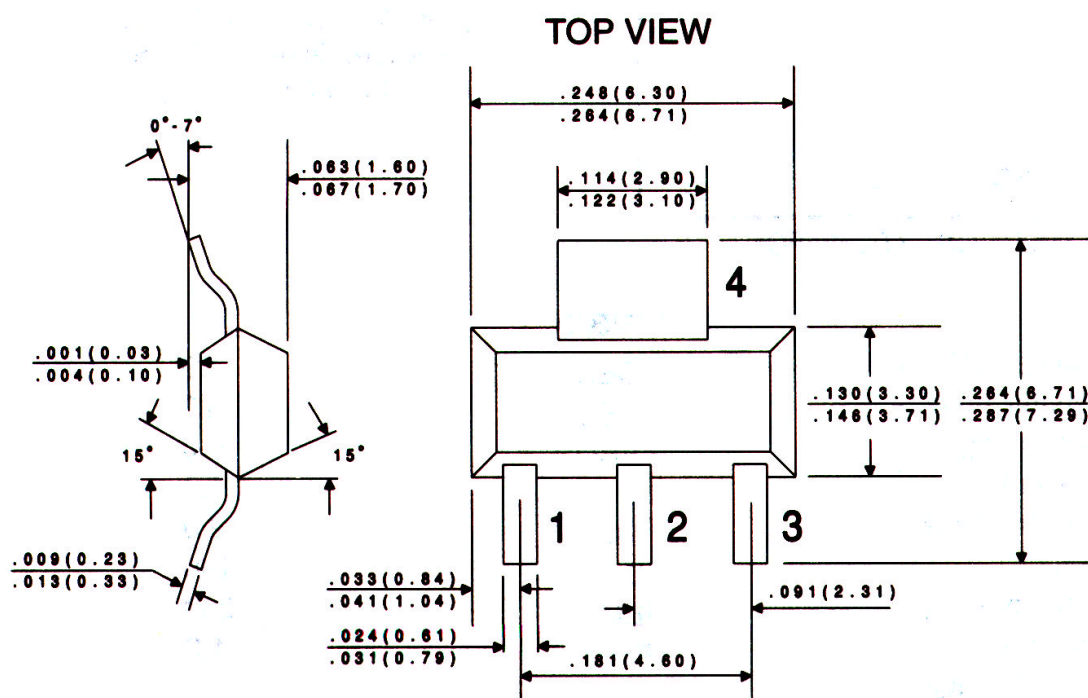
	SYMBOL		UNITS
Collector-Emitter Voltage	$V_{CES}$	25	V
Collector-Emitter Voltage	$V_{CEO}$	20	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	1.0	A
Collector Current-Peak	$I_{CM}$	2.0	A
Base Current	$I_B$	100	mA
Base Current-Peak	$I_{BM}$	200	mA
Power Dissipation	$P_D$	2.0	W
Operating 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	mA
$I_{CBO}$	$V_{CB}=25\text{V}, T_A=150^{\circ}\text{C}$			1.0	mA
$I_{EBO}$	$V_{EB}=5.0\text{V}$			10	mA
$BV_{CBO}$	$I_C=10\text{mA}$	25			V
$BV_{CEO}$	$I_C=10\text{mA}$	20			V
$BV_{EBO}$	$I_E=1.0\text{mA}$	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			

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$h_{FE}$	$V_{CE}=1.0V, I_C=500mA$	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
$C_{ob}$	$V_{CB}=5.0V, I_E=0, F=450kHz$		25		pF

All dimensions in inches (mm).

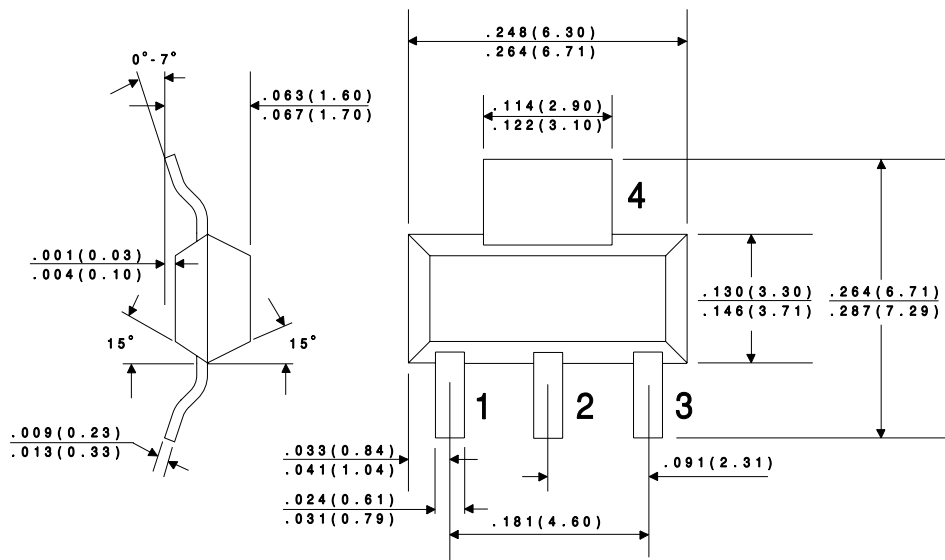


**LEAD CODE:**

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$h_{FE}$	$V_{CE}=1.0V, I_C=500mA$	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
$C_{ob}$	$V_{CB}=5.0V, I_E=0, F=450kHz$		25		pF

All dimensions in inches (mm).



LEAD CODE:

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