

CMPT992  
 CMPT992P  
 CMPT992F  
 CMPT992E

**SURFACE MOUNT PNP LOW NOISE  
 SILICON TRANSISTOR**



**SOT-23 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPT992 types are PNP silicon low noise transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for low noise amplifier applications where a high  $BV_{CEO}$  is required.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE.**

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

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

**SYMBOL**

$V_{CBO}$   
 $V_{CEO}$   
 $V_{EBO}$   
 $I_C$   
 $P_D$   
 $T_J, T_{stg}$   
 $\theta_{JA}$

**UNITS**

110  
 110  
 5.0  
 50  
 350  
 -65 to +150  
 357  
 V  
 V  
 V  
 mA  
 mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{EBO}$	$V_{EB}=5.0\text{V}$		30	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	110		V
$BV_{CEO}$	$I_C=1.0\text{mA}$	110		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.30	V
$V_{BE(ON)}$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	0.55	0.65	V
$f_T$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	50		MHz
$C_{ob}$	$V_{CB}=30\text{V}, I_E=0, f=1.0\text{MHz}$		3.0	pF
NF	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_S=10\text{k}\Omega,$ $f=10\text{Hz to } 15.7\text{KHz}$		3.0	dB

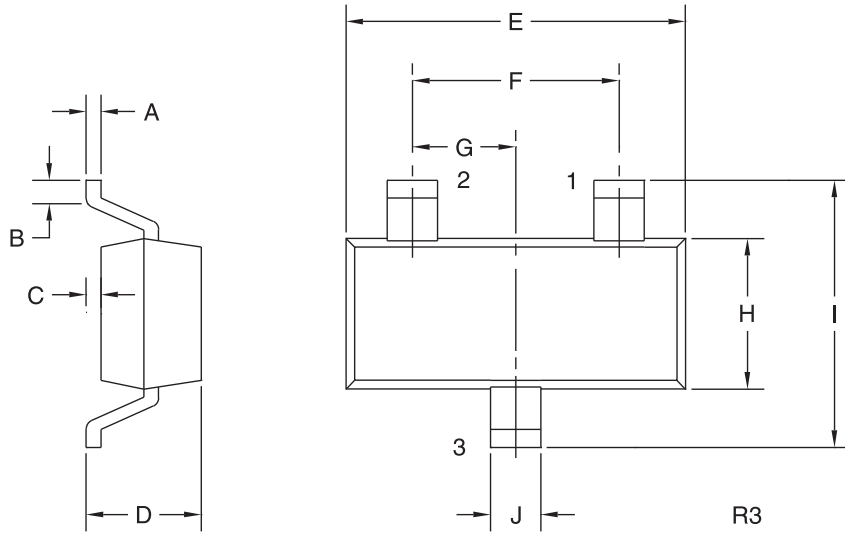
		<u>CMPT992</u>		<u>CMPT992P</u>		<u>CMPT992F</u>		<u>CMPT992E</u>	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
$h_{FE}$	$V_{CE}=6.0\text{V}, I_C=100\mu\text{A}$	150	-	150	-	150	-	150	-
$h_{FE}$	$V_{CE}=6.0\text{V}, I_C=1.0\text{mA}$	200	800	200	400	300	600	400	800

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Base
- 2) Emitter
- 3) Collector

DEVICE	MARKING CODE
CMPT992	C992
CMPT992P	C992P
CMPT992F	C992F
CMPT992E	C992E

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R2 (1-February 2010)