

**CXT5551HC**  
**SURFACE MOUNT**  
**HIGH CURRENT**  
**NPN SILICON TRANSISTOR**

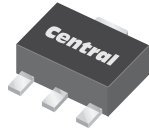


[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXT5551HC type is an high current NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high voltage and high current amplifier applications.

**MARKING: FULL PART NUMBER**



**SOT-89 CASE**

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

Collector-Base Voltage	$V_{CBO}$	180	V
Collector-Emitter Voltage	$V_{CEO}$	160	V
Emitter-Base Voltage	$V_{EBO}$	6.0	V
Continuous Collector Current	$I_C$	1.0	A
Power Dissipation	$P_D$	1.2	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	104	$^\circ\text{C/W}$

**SYMBOL**

**UNITS**

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

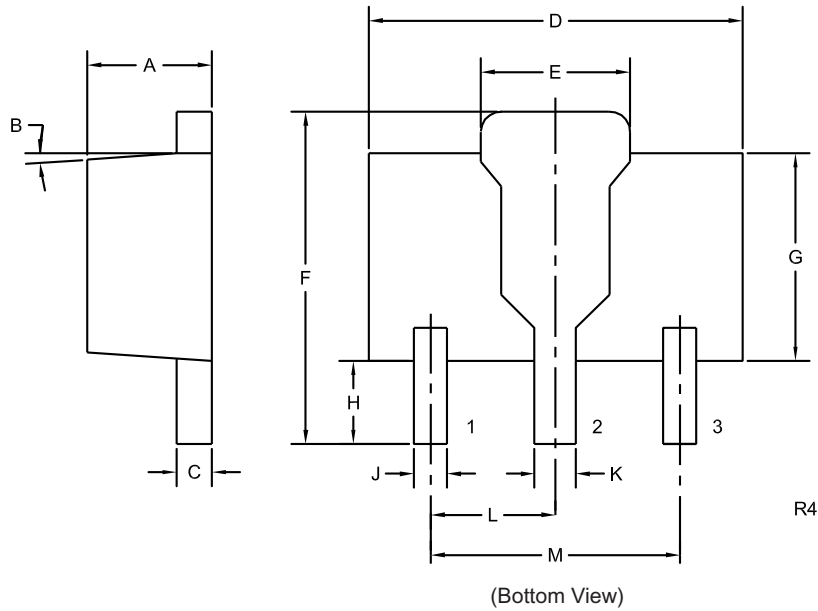
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=120\text{V}$			50	nA
$I_{CBO}$	$V_{CB}=120\text{V}, T_A=100^\circ\text{C}$			50	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0\text{V}$			50	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	180			V
$BV_{CEO}$	$I_C=1.0\text{mA}$	160			V
$BV_{EBO}$	$I_E=10\mu\text{A}$	6.0			V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			0.15	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$			0.20	V
$V_{BE(SAT)}$	$I_C=10\text{mA}, I_B=1.0\text{mA}$			1.00	V
$V_{BE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$			1.00	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	80			
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	80		250	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=50\text{mA}$	30			
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{A}$		10		
$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100			MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$			15	pF

R1 (23-February 2010)

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**SOT-89 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING:**  
**FULL PART NUMBER**

DIMENSIONS				
SYMBOL	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)

R1 (23-February 2010)