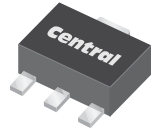


**CXT2907A**  
**SURFACE MOUNT**  
**PNP SILICON TRANSISTOR**



**SOT-89 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXT2907A type is a PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for small signal general purpose and switching applications.

**MARKING: FULL PART NUMBER**

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

	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	60	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	$I_C$	600	mA
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	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=50\text{V}$		10	nA
$I_{CBO}$	$V_{CB}=50\text{V}, T_A=125^\circ\text{C}$		10	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=30\text{V}, V_{BE}=0.5\text{V}$		50	nA
$BV_{CBO}$	$I_C=10\mu\text{A}$	60		V
$BV_{CEO}$	$I_C=10\text{mA}$	60		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.4	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.6	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.3	V
$V_{BE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		2.6	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	75		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	100		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	100		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100	300	

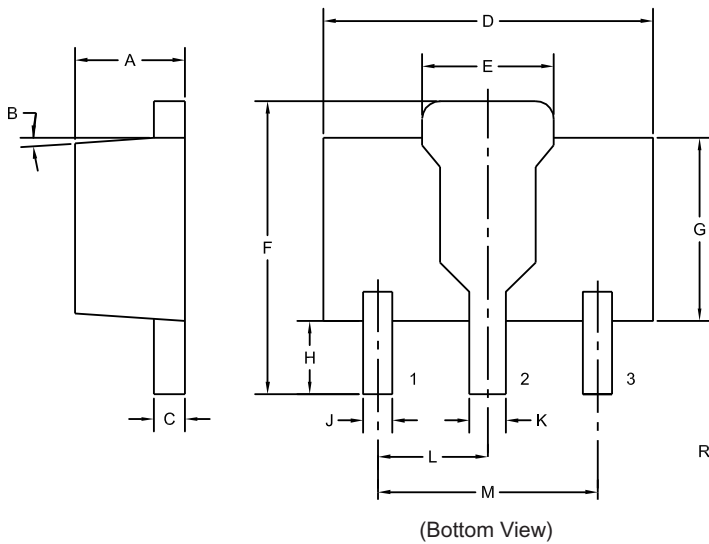
**CXT2907A**  
**SURFACE MOUNT**  
**PNP SILICON TRANSISTOR**



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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$h_{FE}$	$V_{CE}=10\text{V}$ , $I_C=500\text{mA}$	50		
$f_T$	$V_{CE}=20\text{V}$ , $I_C=50\text{mA}$ , $f=100\text{MHz}$	200		MHz
$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1.0\text{MHz}$		8.0	pF
$C_{ib}$	$V_{BE}=2.0\text{V}$ , $I_C=0$ , $f=1.0\text{MHz}$		30	pF
$t_{on}$	$V_{CC}=30\text{V}$ , $V_{BE}=0.5$ , $I_C=150\text{mA}$ , $I_{B1}=15\text{mA}$		45	ns
$t_d$	$V_{CC}=30\text{V}$ , $V_{BE}=0.5$ , $I_C=150\text{mA}$ , $I_{B1}=15\text{mA}$		10	ns
$t_r$	$V_{CC}=30\text{V}$ , $V_{BE}=0.5$ , $I_C=150\text{mA}$ , $I_{B1}=15\text{mA}$		40	ns
$t_{off}$	$V_{CC}=6.0\text{V}$ , $I_C=150\text{mA}$ , $I_{B1}=I_{B2}=15\text{mA}$		100	ns
$t_s$	$V_{CC}=6.0\text{V}$ , $I_C=150\text{mA}$ , $I_{B1}=I_{B2}=15\text{mA}$		80	ns
$t_f$	$V_{CC}=6.0\text{V}$ , $I_C=150\text{mA}$ , $I_{B1}=I_{B2}=15\text{mA}$		30	ns

**SOT-89 CASE - MECHANICAL OUTLINE**



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)

R4

**LEAD CODE:**

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

**MARKING:**

**FULL PART NUMBER**

R7 (23-February 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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