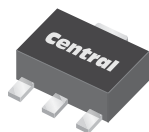


CXT3410 NPN  
CXT7410 PNP

**SURFACE MOUNT  
COMPLEMENTARY LOW  $V_{CE(SAT)}$   
SILICON TRANSISTORS**



**SOT-89 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXT3410 and CXT7410 are Low  $V_{CE(SAT)}$  NPN and PNP silicon transistors packaged in the SOT-89 case. High collector current coupled with a low saturation voltage make this an ideal choice for industrial/consumer applications where operational efficiency and size are high priority.

**MARKING CODE: FULL PART NUMBER**

**APPLICATIONS:**

- Power Management and DC - DC Converters
- Portable and Battery Powered Products
- Cellular and Cordless Phones
- PDAs, Computers, Digital Cameras
- Disk and Tape Drives

**FEATURES:**

- $V_{CE(SAT)}$ =275mV TYP @  $I_C$ =1.0A
- High Current (1.0A MAX)
- Low Voltage (40V MAX)
- SOT-89 Surface Mount Package

**MAXIMUM RATINGS:** ( $T_A$ =25°C)

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

**SYMBOL**

$V_{CBO}$	40
$V_{CEO}$	25
$V_{EBO}$	6.0
$I_C$	1.0
$I_{CM}$	1.5
$P_D$	1.2
$T_J, T_{stg}$	-65 to +150
$\Theta_{JA}$	104

**UNITS**

V
V
V
A
A
W
°C
°C/W

**ELECTRICAL CHARACTERISTICS:** ( $T_A$ =25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	NPN		MAX	UNITS
			TYP	PNP TYP		
$I_{CBO}$	$V_{CB}=40V$				100	nA
$I_{EBO}$	$V_{EB}=6.0V$				100	nA
$BV_{CBO}$	$I_C=100\mu A$	40				V
$BV_{CEO}$	$I_C=10mA$	25				V
$BV_{EBO}$	$I_E=100\mu A$	6.0				V
$V_{CE(SAT)}$	$I_C=50mA, I_B=5.0mA$		25	30	50	mV
$V_{CE(SAT)}$	$I_C=100mA, I_B=10mA$		40	50	75	mV
$V_{CE(SAT)}$	$I_C=200mA, I_B=20mA$		80	95	150	mV
$V_{CE(SAT)}$	$I_C=500mA, I_B=50mA$		190	205	250	mV
$V_{CE(SAT)}$	$I_C=800mA, I_B=80mA$		290	320	400	mV
$V_{CE(SAT)}$	$I_C=1.0A, I_B=100mA$		360	400	450	mV

R2 (1-August 2011)

**CXT3410 NPN**  
**CXT7410 PNP**

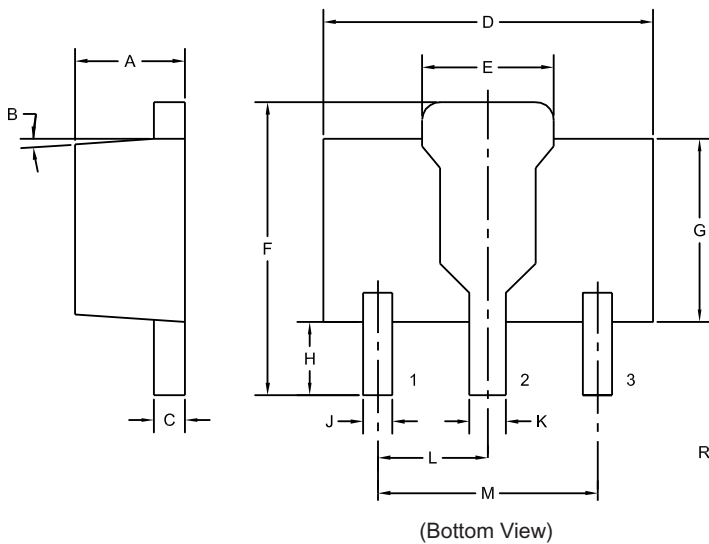
**SURFACE MOUNT**  
**COMPLEMENTARY LOW  $V_{CE(SAT)}$**   
**SILICON TRANSISTORS**



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

SYMBOL	TEST CONDITIONS	MIN	NPN	PNP	MAX	UNITS
			TYP	TYP		
$V_{BE(SAT)}$	$I_C=80\text{mA}$ , $I_B=80\text{mA}$				1.1	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}$ , $I_C=10\text{mA}$				0.9	V
$h_{FE}$	$V_{CE}=1.0\text{V}$ , $I_C=10\text{mA}$	100				
$h_{FE}$	$V_{CE}=1.0\text{V}$ , $I_C=100\text{mA}$	100			300	
$h_{FE}$	$V_{CE}=1.0\text{V}$ , $I_C=500\text{mA}$	100				
$h_{FE}$	$V_{CE}=1.0\text{V}$ , $I_C=1.0\text{A}$	50				
$f_T$	$V_{CE}=10\text{V}$ , $I_C=50\text{mA}$ , $f=100\text{MHz}$	100				MHz
$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1.0\text{MHz}$ (CXT3410)		6.0		10	pF
$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1.0\text{MHz}$ (CXT7410)			10	15	pF

**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**

R2 (1-August 2011)

## 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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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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