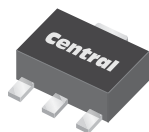


CXT3410 NPN
CXT7410 PNP

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



SOT-89 CASE



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
 Θ_{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

CXT3410 NPN
CXT7410 PNP

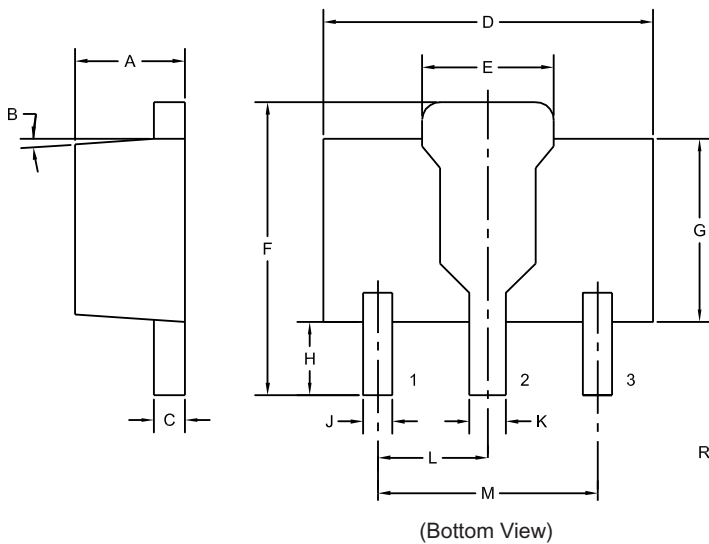
SURFACE MOUNT
COMPLEMENTARY LOW $V_{CE(SAT)}$
SILICON TRANSISTORS



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



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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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