

CMLT3410 NPN
 CMLT7410 PNP
 CMLT3474 NPN/PNP

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

PICOmini™



SOT-563 CASE



www.centrasemi.com

DESCRIPTION:

These CENTRAL SEMICONDUCTOR dual devices are low $V_{CE(SAT)}$ silicon transistors in a PICOmini™ surface mount package designed for small signal general purpose amplifier and switching applications requiring low collector emitter saturation voltage.

**MARKING CODES: CMLT3410: C34
 CMLT7410: C74
 CMLT3474: C37**

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

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 350
 T_J, T_{stg} -65 to +150
 θ_{JA} 357

UNITS

V
 V
 V
 A
 A
 mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	NPN		PNP		MAX	UNITS
				TYP	TYP			
I_{CBO}	$V_{CB}=40\text{V}$					100	nA	
I_{EBO}	$V_{EB}=6.0\text{V}$					100	nA	
BV_{CBO}	$I_C=100\mu\text{A}$	40					V	
BV_{CEO}	$I_C=10\text{mA}$	25					V	
BV_{EBO}	$I_E=100\mu\text{A}$	6.0					V	
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		25	30		50	mV	
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		40	50		75	mV	
$V_{CE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$		80	95		150	mV	
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		190	205		250	mV	
$V_{CE(SAT)}$	$I_C=800\text{mA}, I_B=80\text{mA}$		290	320		400	mV	
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		360	400		450	mV	
$V_{BE(SAT)}$	$I_C=800\text{mA}, I_B=80\text{mA}$					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}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$ (CMLT3410)		6.0			10	pF	
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$ (CMLT7410)			10		15	pF	

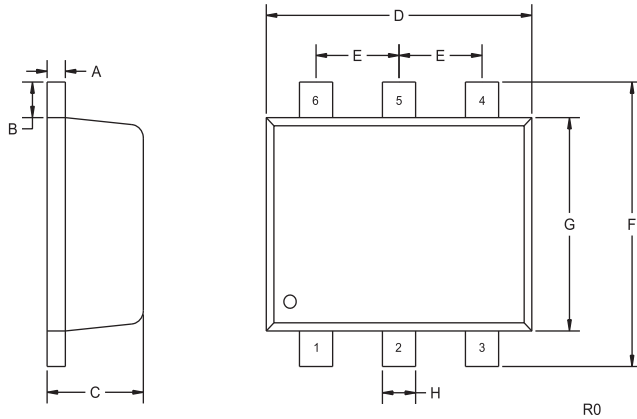
R3 (1-August 2011)

CMLT3410 NPN
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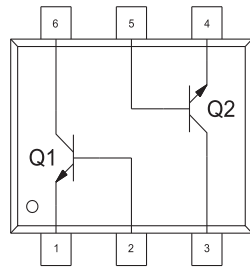
SOT-563 CASE - MECHANICAL OUTLINE



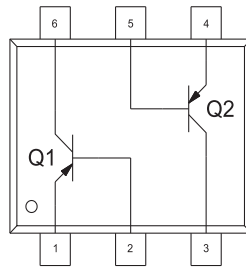
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

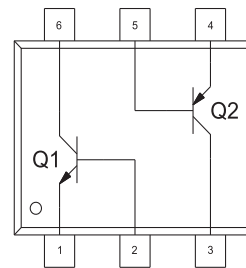
PIN CONFIGURATIONS



MARKING CODE:
CMLT3410: C34



MARKING CODE:
CMLT7410: C74



MARKING CODE:
CMLT3474: C37

- LEAD CODE:**
- 1) Emitter Q1
 - 2) Base Q1
 - 3) Collector Q2
 - 4) Emitter Q2
 - 5) Base Q2
 - 6) Collector Q1

R3 (1-August 2011)