

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	TYP			MAX	UNITS
		MIN	NPN	PNP		
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
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		20	25	50	mV
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		35	40	75	mV
$V_{CE(SAT)}$	$I_C=200\text{mA}, I_B=20\text{mA}$		75	80	150	mV
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		130	150	250	mV
$V_{CE(SAT)}$	$I_C=800\text{mA}, I_B=80\text{mA}$		200	220	400	mV
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		250	275	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)				10	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$ (CMLT7410)				15	pF

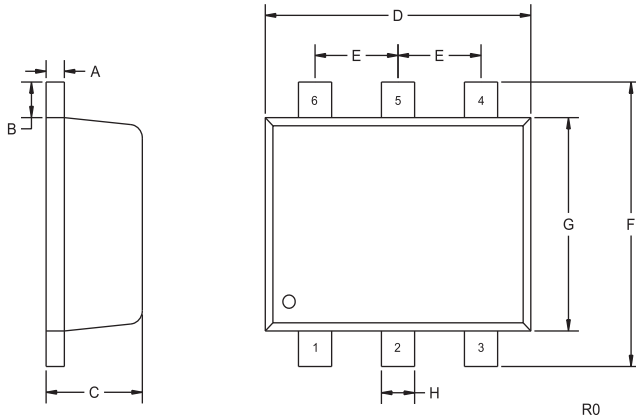
R2 (20-January 2010)

CMLT3410 NPN
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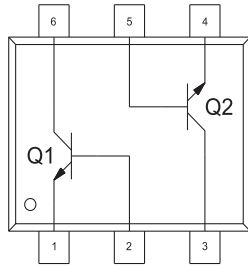
SOT-563 CASE - MECHANICAL OUTLINE



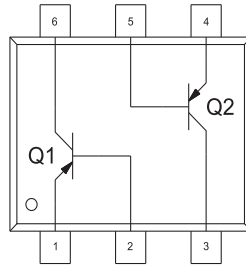
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.10	0.18
B	0.008		0.20	
C	0.022	0.024	0.56	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.047		1.20	
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R0)

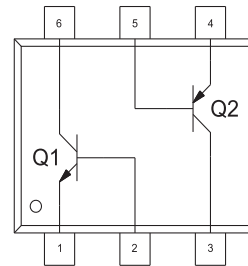
PIN CONFIGURATIONS



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

R2 (20-January 2010)