

CMLT3410 NPN
 CMLT7410 PNP
 CMLT3474 NPN/PNP

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



SOT-563 CASE



www.centrasemi.com

DESCRIPTION:

These CENTRAL SEMICONDUCTOR dual devices are low $V_{CE(SAT)}$ silicon transistors in an SOT-563 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 | |

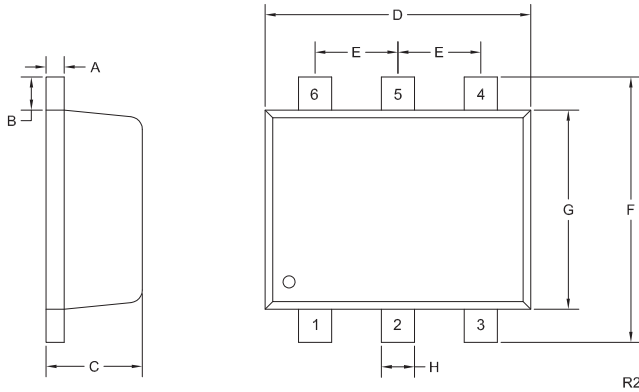
R5 (29-June 2015)

CMLT3410 NPN
 CMLT7410 PNP
 CMLT3474 NPN/PNP



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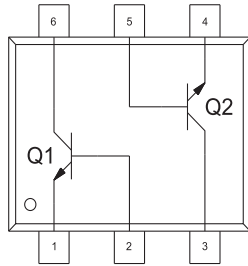
SOT-563 CASE - MECHANICAL OUTLINE



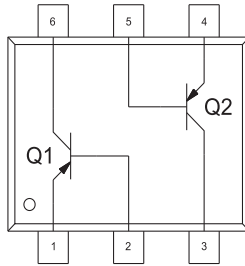
| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.0027 | 0.007 | 0.07 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.017 | 0.024 | 0.45 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.059 | 0.067 | 1.50 | 1.70 |
| G | 0.043 | 0.051 | 1.10 | 1.30 |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R2)

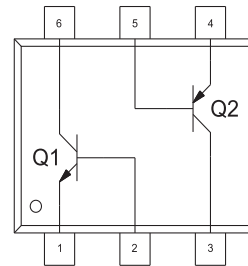
PIN CONFIGURATIONS



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

R5 (29-June 2015)

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).

CONTACT US

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