**CMLT3410 CMLT3410G* NPN**
**CMLT7410 CMLT7410G* PNP**
**CMLT3474 CMLT3474G* NPN/PNP**

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

PICOmini™

**SOT-563 CASE**

**Central™**
**Semiconductor Corp.**

**DESCRIPTION:**

These 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** | **CMLT3410G: 34G** |
| **CMLT7410: C74** | **CMLT7410G: 74G** |
| **CMLT3474: C37** | **CMLT3474G: 37G** |

***** Device is ***Halogen Free*** by design

**MAXIMUM RATINGS:** ($T_A$=25°C)

| | SYMBOL | | UNITS |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | 40 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | 25 | V |
| Emitter-Base Voltage | $V_{EBO}$ | 6.0 | V |
| Collector Current | $I_C$ | 1.0 | A |
| Collector Current (Peak) | $I_{CM}$ | 1.5 | A |
| Power Dissipation | $P_D$ | 350 | mW |
| Operating and Storage Junction Temperature | $T_J$,$T_{stg}$ | -65 to +150 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 357 | °C/W |

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

| | | | TYP | | | |
|---|---|---|---|---|---|---|
| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **NPN** | **PNP** | **MAX** | **UNITS** |
| $I_{CBO}$ | $V_{CB}$=40V | | | | 100 | nA |
| $I_{EBO}$ | $V_{EB}$=6.0V | | | | 100 | nA |
| $BV_{CBO}$ | $I_C$=100μA | 40 | | | | V |
| $BV_{CEO}$ | $I_C$=10mA | 25 | | | | V |
| $BV_{EBO}$ | $I_E$=100μA | 6.0 | | | | V |
| $V_{CE(SAT)}$ | $I_C$=50mA, $I_B$=5.0mA | | 20 | 25 | 50 | mV |
| $V_{CE(SAT)}$ | $I_C$=100mA, $I_B$=10mA | | 35 | 40 | 75 | mV |
| $V_{CE(SAT)}$ | $I_C$=200mA, $I_B$=20mA | | 75 | 80 | 150 | mV |
| $V_{CE(SAT)}$ | $I_C$=500mA, $I_B$=50mA | | 130 | 150 | 250 | mV |
| $V_{CE(SAT)}$ | $I_C$=800mA, $I_B$=80mA | | 200 | 220 | 400 | mV |
| $V_{CE(SAT)}$ | $I_C$=1.0A, $I_B$=100mA | | 250 | 275 | 450 | mV |
| $V_{BE(SAT)}$ | $I_C$=800mA, $I_B$=80mA | | | | 1.1 | V |
| $V_{BE(ON)}$ | $V_{CE}$=1.0V, $I_C$=10mA | | | | 0.9 | V |
| $h_{FE}$ | $V_{CE}$=1.0V, $I_C$=10mA | 100 | | | | |
| $h_{FE}$ | $V_{CE}$=1.0V, $I_C$=100mA | 100 | | | 300 | |
| $h_{FE}$ | $V_{CE}$=1.0V, $I_C$=500mA | 100 | | | | |
| $h_{FE}$ | $V_{CE}$=1.0V, $I_C$=1.0A | 50 | | | | |
| $f_T$ | $V_{CE}$=10V, $I_C$=50mA, f=100MHz | 100 | | | | MHz |
| $C_{ob}$ | $V_{CB}$=10V, $I_E$=0, f=1.0MHz (CMLT3410) | | | | 10 | pF |
| $C_{ob}$ | $V_{CB}$=10V, $I_E$=0, f=1.0MHz (CMLT7410) | | | | 15 | pF |

R1 (7-April 2009)

**Central™**
**Semiconductor Corp.**

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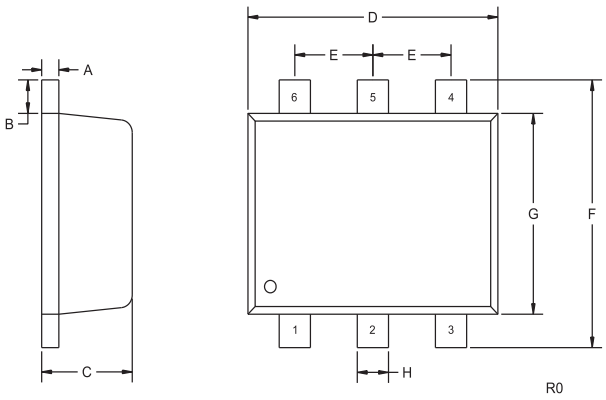
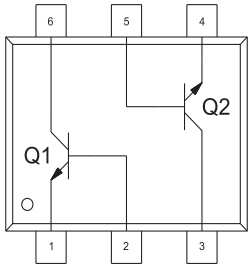
**SURFACE MOUNT PICOmini™**
**DUAL LOW $V_{CE(SAT)}$**
**SILICON TRANSISTORS**

## SOT-563 CASE - MECHANICAL OUTLINE



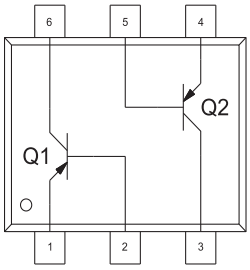

| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.10 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.022 | 0.024 | 0.56 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.061 | 0.067 | 1.55 | 1.70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

SOT-563 (REV: R0)



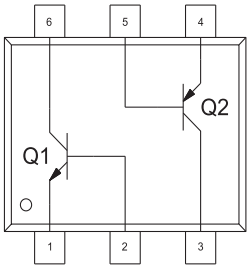

**MARKING CODE**

**CMLT3410: C34**
**CMLT3410G: 34G**




**MARKING CODE**

**CMLT7410: C74**
**CMLT7410G: 74G**




**MARKING CODE**

**CMLT3474: C37**
**CMLT3474G: 37G**

**LEAD CODE:**

1) EMITTER Q1
2) BASE Q1
3) COLLECTOR Q2
4) EMITTER Q2
5) BASE Q2
6) COLLECTOR Q1

***** Device is ***Halogen Free*** by design

R1 (7-April 2009)