

CMLT5551

**SURFACE MOUNT SILICON  
DUAL, HIGH VOLTAGE  
NPN TRANSISTOR**



**SOT-563 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLT5551 consists of two individual, isolated NPN silicon transistors manufactured by the epitaxial planar process and epoxy molded in an SOT-563 surface mount package. This device has been designed for high voltage amplifier applications.

**MARKING CODE: 5C5**

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

Collector-Base Voltage  
Collector-Emitter Voltage  
Emitter-Base Voltage  
Continuous Collector Current  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_{CBO}$  180  
 $V_{CEO}$  160  
 $V_{EBO}$  6.0  
 $I_C$  600  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  357

**UNITS**

V  
V  
V  
mA  
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 | MAX  | UNITS         |
|---------------|---|-----|------|---------------|
| $I_{CBO}$     | $V_{CB}=120\text{V}$  |     | 50   | nA            |
| $I_{CBO}$     | $V_{CB}=120\text{V}, T_A=100^{\circ}\text{C}$   |     | 50   | $\mu\text{A}$ |
| $BV_{CBO}$    | $I_C=100\mu\text{A}$  | 180 |      | V             |
| $BV_{CEO}$    | $I_C=1.0\text{mA}$  | 160 |      | V             |
| $BV_{EBO}$    | $I_E=10\mu\text{A}$   | 6.0 |      | V             |
| $V_{CE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$   |     | 0.15 | V             |
| $V_{CE(SAT)}$ | $I_C=50\text{mA}, I_B=5.0\text{mA}$   |     | 0.20 | V             |
| $V_{BE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$   |     | 1.00 | V             |
| $V_{BE(SAT)}$ | $I_C=50\text{mA}, I_B=5.0\text{mA}$   |     | 1.00 | V             |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$  | 80  |      |               |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=10\text{mA}$   | 80  | 250  |               |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=50\text{mA}$   | 30  |      |               |
| $f_T$         | $V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$   | 100 | 300  | MHz           |
| $C_{ob}$      | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$   |     | 6.0  | pF            |
| $h_{fe}$      | $V_{CE}=10\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$  | 50  | 200  |               |
| NF            | $V_{CE}=5.0\text{V}, I_C=200\mu\text{A}, R_S=10\Omega,$<br>$f=10\text{Hz to } 15.7\text{kHz}$ |     | 8.0  | dB            |

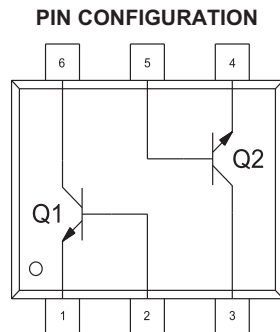
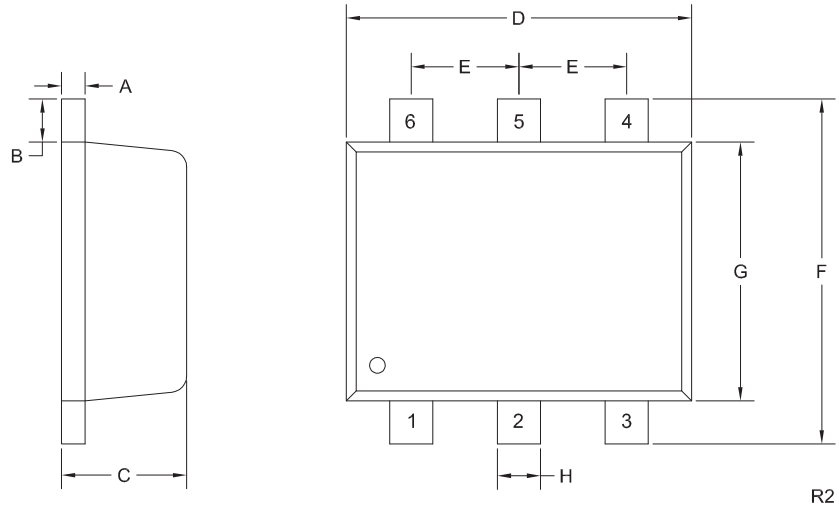
R3 (29-June 2015)

CMLT5551

SURFACE MOUNT SILICON  
DUAL, HIGH VOLTAGE  
NPN TRANSISTOR



SOT-563 CASE - MECHANICAL OUTLINE



**LEAD CODE:**

- 1) Emitter Q1
- 2) Base Q1
- 3) Collector Q1
- 4) Emitter Q2
- 5) Base Q2
- 6) Collector Q2

**MARKING CODE: 5C5**

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| 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)

R3 (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 (2<sup>nd</sup> 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

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centalsemi.com](http://www.centalsemi.com)

**Worldwide Field Representatives:**  
[www.centalsemi.com/wwreps](http://www.centalsemi.com/wwreps)

**Worldwide Distributors:**  
[www.centalsemi.com/wwdistributors](http://www.centalsemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centalsemi.com/terms](http://www.centalsemi.com/terms)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Central Semiconductor:

[CMLT5551](#) [CMLT5551 TR](#)