

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

| NPN    | PNP    |
|--------|--------|
| 2N6551 | 2N6554 |
| 2N6552 | 2N6555 |
| 2N6553 | 2N6556 |

COMPLEMENTARY SILICON TRANSISTOR

JEDEC TO-202 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6551 series and 2N6554 series types are Complementary Silicon Transistors manufactured by the epitaxial planar process designed for general purpose audio amplifier applications.

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

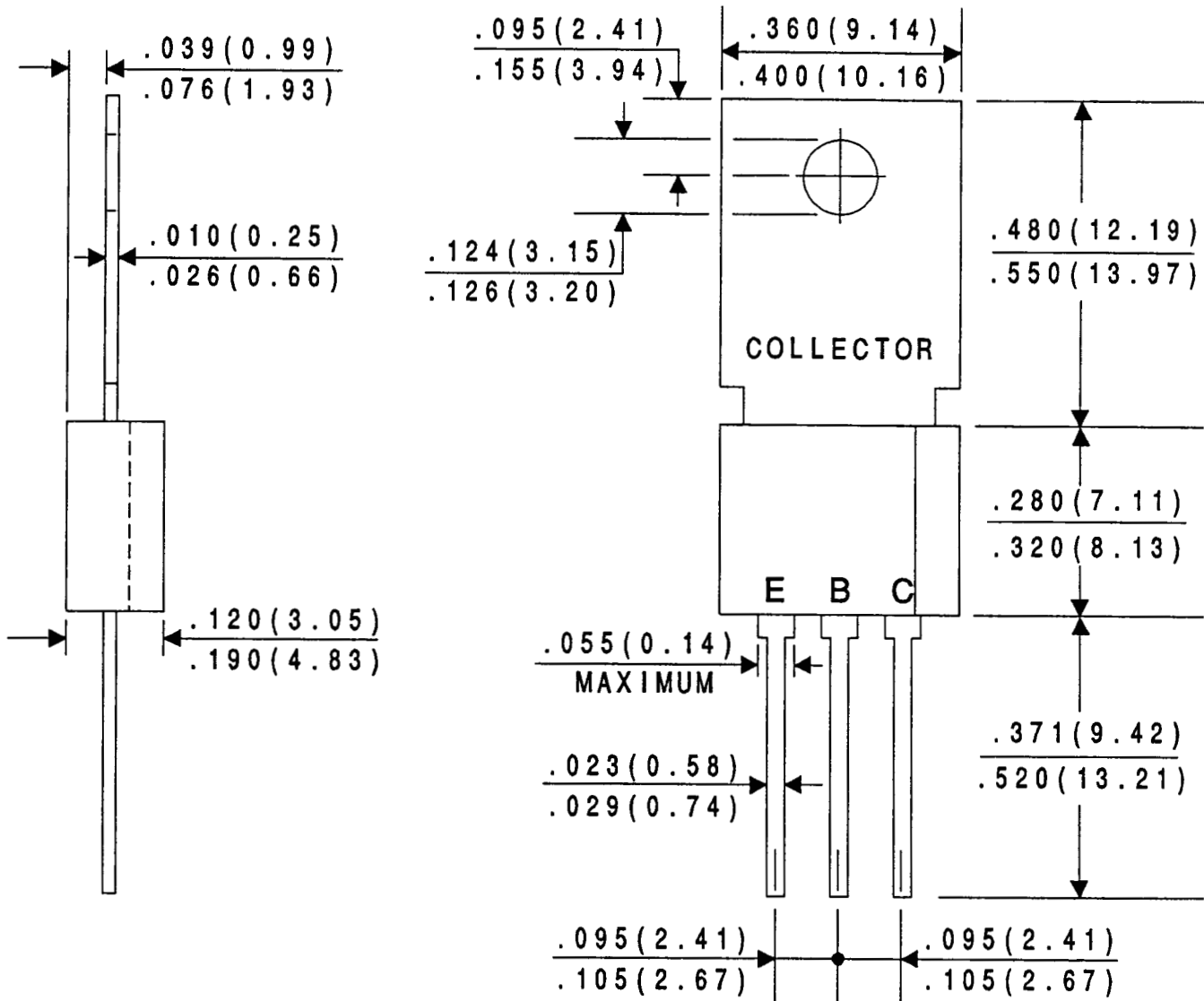
|  | SYMBOL         | 2N6551<br>2N6554 | 2N6552<br>2N6555 | 2N6553<br>2N6556 | UNITS              |
|--|----------------|------------------|------------------|------------------|--------------------|
| Collector-Base Voltage                         | $V_{CB0}$      | 60               | 80               | 100              | V                  |
| Collector-Emitter Voltage                      | $V_{CE0}$      | 60               | 80               | 100              | V                  |
| Emitter-Base Voltage                           | $V_{EBO}$      |                  | 5.0              |                  | V                  |
| Collector Current                              | $I_C$          |                  | 1.0              |                  | A                  |
| Peak Collector Current                         | $I_{CM}$       |                  | 2.0              |                  | A                  |
| Base Current                                   | $I_B$          |                  | 100              |                  | mA                 |
| Power Dissipation                              | $P_D$          |                  | 2.0              |                  | W                  |
| Power Dissipation ( $T_C = 25^\circ\text{C}$ ) | $P_D$          |                  | 10               |                  | W                  |
| Operating and Storage                          |                |                  |                  |                  |                    |
| Junction Temperature                           | $T_J, T_{stg}$ |                  | -65 to +150      |                  | $^\circ\text{C}$   |
| Thermal Resistance                             | $\theta_{JA}$  |                  | 62.5             |                  | $^\circ\text{C/W}$ |
| Thermal Resistance                             | $\theta_{JC}$  |                  | 12.5             |                  | $^\circ\text{C/W}$ |

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

| SYMBOL        | TEST CONDITIONS  | 2N6551<br>2N6554 |     | 2N6552<br>2N6555 |     | 2N6553<br>2N6556 |     | UNITS |
|---------------|--|------------------|-----|------------------|-----|------------------|-----|-------|
|               |  | MIN              | MAX | MIN              | MAX | MIN              | MAX |       |
| $I_{CBO}$     | $V_{CB} = 40\text{V}$  |                  | 100 |                  | -   |                  | -   | nA    |
| $I_{CBO}$     | $V_{CB} = 60\text{V}$  |                  | -   |                  | 100 |                  | -   | nA    |
| $I_{CBO}$     | $V_{CB} = 80\text{V}$  |                  | -   |                  | -   |                  | 100 | nA    |
| $I_{EBO}$     | $V_{BE} = 4.0\text{V}$                                       |                  | 100 |                  | 100 |                  | 100 | nA    |
| $BV_{CE0}$    | $I_C = 1.0\text{mA}$   | 60               |     | 80               |     | 100              |     | V     |
| $BV_{CB0}$    | $I_C = 100\mu\text{A}$                                       | 60               |     | 80               |     | 100              |     | V     |
| $BV_{EBO}$    | $I_E = 100\mu\text{A}$                                       | 5.0              |     | 5.0              |     | 5.0              |     | V     |
| $V_{CE(SAT)}$ | $I_C = 250\text{mA}, I_B = 10\text{mA}$                      |                  | 0.5 |                  | 0.5 |                  | 0.5 | V     |
| $V_{CE(SAT)}$ | $I_C = 1.0\text{A}, I_B = 100\text{mA}$                      |                  | 1.0 |                  | 1.0 |                  | 1.0 | V     |
| $V_{BE(ON)}$  | $V_{CE} = 5.0\text{V}, I_C = 250\text{mA}$                   |                  | 1.2 |                  | 1.2 |                  | 1.2 | V     |
| $h_{FE}$      | $V_{CE} = 1.0\text{V}, I_C = 10\text{mA}$                    | 60               |     | 60               |     | 60               |     |       |
| $h_{FE}$      | $V_{CE} = 1.0\text{V}, I_C = 50\text{mA}$                    | 80               | 300 | 80               | 300 | 80               | 300 |       |
| $h_{FE}$      | $V_{CE} = 1.0\text{V}, I_C = 250\text{mA}$                   | 60               |     | 60               |     | 60               |     |       |
| $h_{FE}$      | $V_{CE} = 1.0\text{V}, I_C = 500\text{mA}$                   | 25               |     | 25               |     | 25               |     |       |
| $f_T$         | $V_{CE} = 5.0\text{V}, I_C = 100\text{mA}, f = 20\text{MHz}$ | 75               | 375 | 75               | 375 | 75               | 375 | MHz   |
| $C_{ob}$      | $V_{CB} = 20\text{V}, I_E = 0, f = 1.0\text{MHz}$            |                  | 18  |                  | 18  |                  | 18  | pF    |

(OVER)

# JEDEC TO-202 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

This datasheet has been download from:

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

Datasheets for electronics components.