

MPS6533  
MPS6534  
MPS6535

**PNP SILICON TRANSISTORS**



**TO-92 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MPS6533 series types are PNP silicon transistors designed for general purpose amplifier applications. The NPN complementary types are MPS6530, MPS6531, MPS6532 respectively.

**MARKING: FULL PART NUMBER**

**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

| SYMBOL         | MPS6533 | MPS6534     | MPS6535 | UNITS            |
|----------------|---------|-------------|---------|------------------|
| $V_{CB0}$      | 40      | 40          | 30      | V                |
| $V_{CEO}$      | 40      | 40          | 30      | V                |
| $V_{EBO}$      |         | 4.0         |         | V                |
| $I_C$          |         | 600         |         | mA               |
| $P_D$          |         | 625         |         | mW               |
| $T_J, T_{stg}$ |         | -65 to +150 |         | $^\circ\text{C}$ |

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

| SYMBOL        | TEST CONDITIONS                             | MPS6533  |     | MPS6534  |     | MPS6535  |     | UNITS         |
|---------------|---------------------------------------------|----------|-----|----------|-----|----------|-----|---------------|
|               |                                             | MIN      | MAX | MIN      | MAX | MIN      | MAX |               |
| $I_{CBO}$     | $V_{CB}=30\text{V}$                         | -        | 50  | -        | 50  | -        | -   | nA            |
| $I_{CBO}$     | $V_{CB}=30\text{V}, T_A=60^\circ\text{C}$   | -        | 2.0 | -        | 2.0 | -        | -   | $\mu\text{A}$ |
| $I_{CBO}$     | $V_{CB}=20\text{V}$                         | -        | -   | -        | -   | -        | 100 | nA            |
| $I_{CBO}$     | $V_{CB}=20\text{V}, T_A=60^\circ\text{C}$   | -        | -   | -        | -   | -        | 5.0 | $\mu\text{A}$ |
| $BV_{CBO}$    | $I_C=10\mu\text{A}$                         | 40       | -   | 40       | -   | 30       | -   | V             |
| $BV_{CEO}$    | $I_C=10\text{mA}$                           | 40       | -   | 40       | -   | 30       | -   | V             |
| $BV_{EBO}$    | $I_E=10\mu\text{A}$                         | 4.0      | -   | 4.0      | -   | 4.0      | -   | V             |
| $V_{CE(SAT)}$ | $I_C=100\text{mA}, I_B=10\text{mA}$         | -        | 0.5 | -        | 0.3 | -        | 0.5 | V             |
| $V_{BE(SAT)}$ | $I_C=100\text{mA}, I_B=10\text{mA}$         | -        | 1.0 | -        | 1.0 | -        | 1.2 | V             |
| $h_{FE}$      | $V_{CE}=1.0\text{V}, I_C=10\text{mA}$       | 30       | -   | 60       | -   | -        | -   |               |
| $h_{FE}$      | $V_{CE}=1.0\text{V}, I_C=100\text{mA}$      | 40       | 120 | 90       | 270 | 30       | -   |               |
| $h_{FE}$      | $V_{CE}=10\text{V}, I_C=500\text{mA}$       | 25       | -   | 50       | -   | -        | -   |               |
| $C_{ob}$      | $V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$ | -        | 6.0 | -        | 6.0 | -        | 6.0 | pF            |
| $f_T$         | $V_{CE}=10\text{V}, I_C=50\text{mA}$        | 250(TYP) |     | 250(TYP) |     | 250(TYP) |     | MHz           |

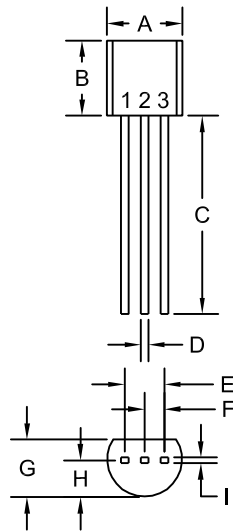
R1 (29-November 2012)

MPS6533  
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PNP SILICON TRANSISTORS



TO-92 CASE - MECHANICAL OUTLINE



R1

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A (DIA)    | 0.175  | 0.205 | 4.45        | 5.21 |
| B          | 0.170  | 0.210 | 4.32        | 5.33 |
| C          | 0.500  | -     | 12.70       | -    |
| D          | 0.016  | 0.022 | 0.41        | 0.56 |
| E          | 0.100  |       | 2.54        |      |
| F          | 0.050  |       | 1.27        |      |
| G          | 0.125  | 0.165 | 3.18        | 4.19 |
| H          | 0.080  | 0.105 | 2.03        | 2.67 |
| I          | 0.015  |       | 0.38        |      |

TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter
- 2) Base
- 3) Collector

MARKING:  
FULL PART NUMBER

R1 (29-November 2012)