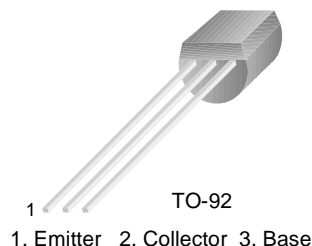


2N5366

2N5366

PNP General Purpose Amplifier

- This device is designed for general purpose amplifiers applications at collector currents to 300mA.
- Sourced from process 68.



Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|----------------|--|------------|------------------|
| V_{CEO} | Collector-Emitter Voltage | 40 | V |
| V_{CBO} | Collector-Base Voltage | 40 | V |
| V_{EBO} | Emitter-Base Voltage | 4.0 | V |
| I_C | Collector current - Continuous | 500 | mA |
| T_J, T_{STG} | Operating and Storage Junction Temperature Range | -55 ~ +150 | $^\circ\text{C}$ |

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

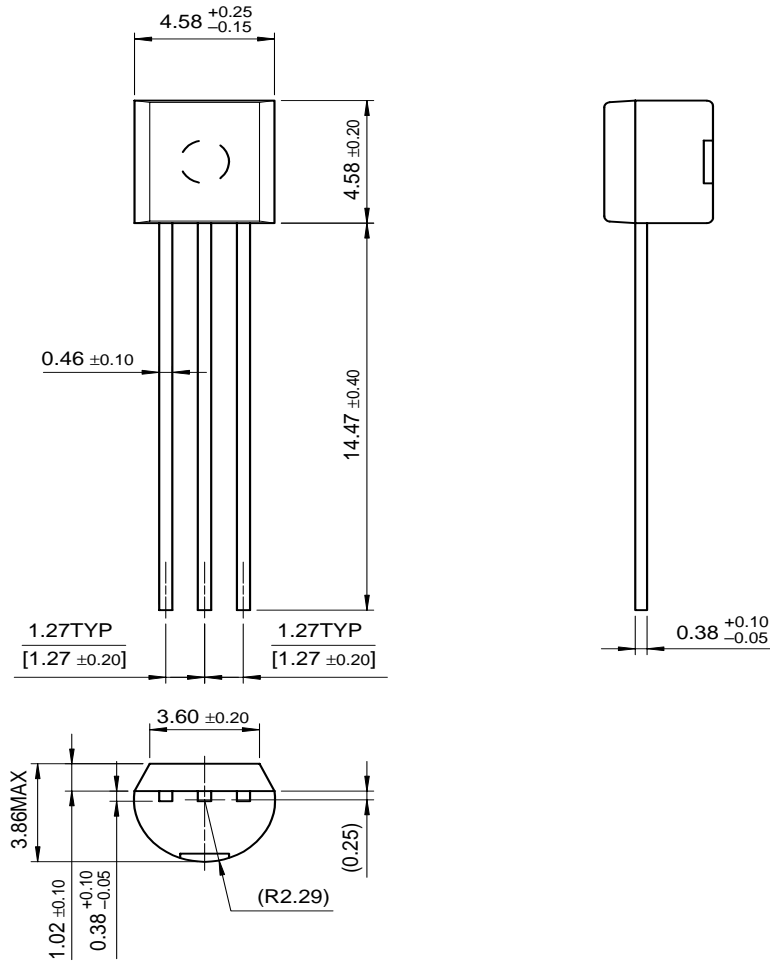
| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|--|-----------------|------|-------------|---------------|
| V_{CBO} | Collector-Base Breakdown Voltage | $I_C = 10\mu\text{A}$ | 40 | | | V |
| V_{CEO} | Collector-Emitter Breakdown Voltage | $I_C = 10\text{mA}$ | 40 | | | V |
| V_{EBO} | Emitter-Base Breakdown Voltage | $I_C = 10\mu\text{A}$ | 4.0 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = 40\text{V}$ | | | 100 | nA |
| I_{CES} | Collector Cut-off Current | $V_{CB} = 40\text{V}$ | | | 100 | nA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = 4.0\text{V}$ | | | 10 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = 10\text{V}, I_C = 2.0\text{mA}$ $V_{CE} = 1.0\text{V}, I_C = 50\text{mA}$ $V_{CE} = 5.0\text{V}, I_C = 300\text{mA}$ | 80 100 40 | | 300 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 50\text{mA}, I_B = 2.5\text{mA}$ $I_C = 300\text{mA}, I_B = 30\text{mA}$ | | | 0.25 1.0 | V |
| $V_{BE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 50\text{mA}, I_B = 2.5\text{mA}$ $I_C = 300\text{mA}, I_B = 30\text{mA}$ | | | 1.1 2.0 | |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $V_{CE} = 10\text{V}, I_C = 2.0\text{mA}$ | 0.5 | | 0.8 | V |
| C_{ob} | Output Capacitance | $V_{CB} = 10\text{V}, f = 1\text{MHz}$ | | | 8.0 | pF |
| C_{ib} | Input Capacitance | $V_{CB} = 0.5\text{V}, f = 1\text{MHz}$ | | | 35 | pF |
| h_{fe} | Small-Signal Current Gain | $V_{CE} = 10\text{V}, I_C = 2.0\text{mA}, f = 1\text{MHz}$ | 80 | 450 | | |

Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Max. | Units |
|-----------------|---|------------|----------------------------|
| P_D | Total Device Dissipation Derate above 25°C | 625 5.0 | mW mW/ $^\circ\text{C}$ |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 200 | $^\circ\text{C/W}$ |

Package Dimensions

TO-92



Dimensions in Millimeters

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