

NTE2337 Silicon NPN Transistor High Speed Switch

Features:

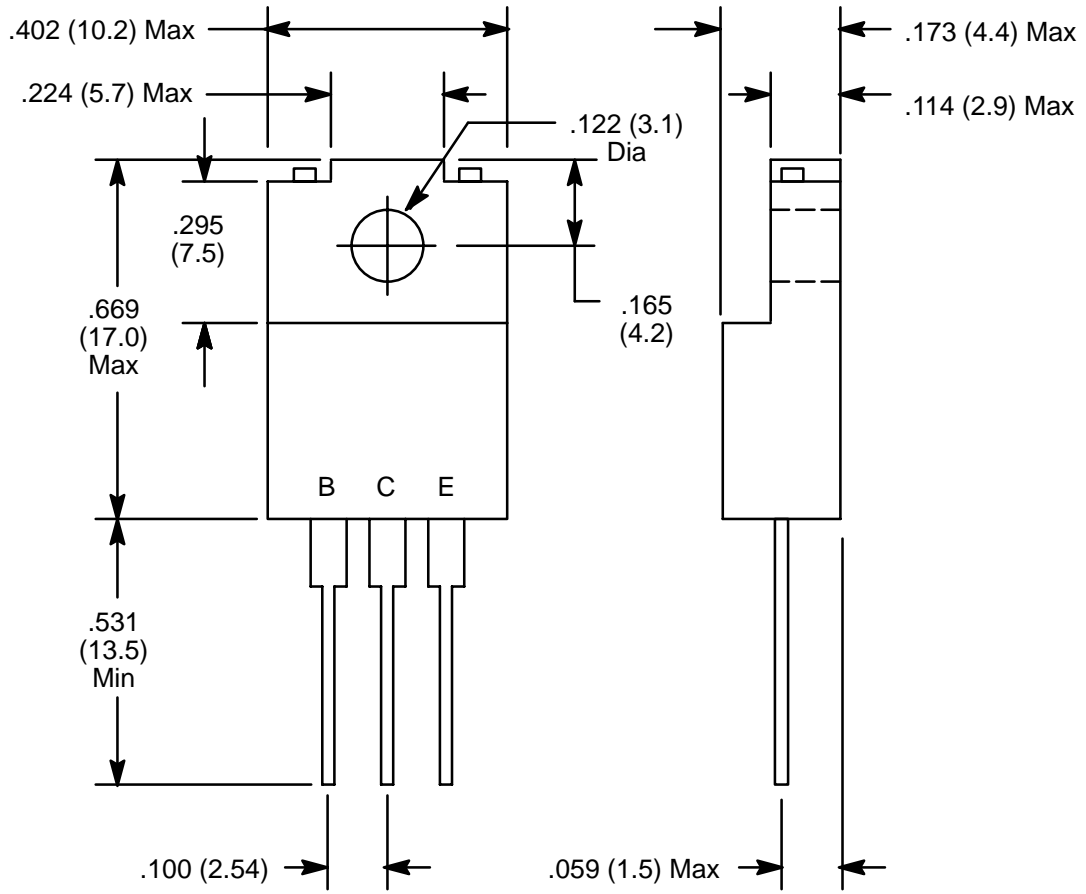
- High Collector–Base Voltage (V_{CBO})
- Wide Area of Safety Operation (ASO)
- Good Linearity of DC Current Gain (h_{FE})

Absolute Maximum Ratings: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

| | |
|---|----------------|
| Collector–Base Voltage, V_{CBO} | 900V |
| Collector Emitter Voltage, V_{CES} | 900V |
| Collector–Emitter Voltage, V_{CEO} | 500V |
| Emitter Base Voltage, V_{EBO} | 8V |
| Peak Collector Current, I_{CP} | 15A |
| Collector Current, I_C | 7A |
| Base Current, I_B | 4A |
| Collector Power Dissipation, P_C | |
| $T_C = +25^\circ\text{C}$ | 45W |
| $T_A = +25^\circ\text{C}$ | 2W |
| Operating Junction Temperature, T_J | +150°C |
| Storage Temperature Range, T_{stg} | –55° to +150°C |

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|-----|---------------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 900\text{V}, I_E = 0$ | – | – | 100 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 5\text{V}, I_C = 0$ | – | | 100 | μA |
| Collector Emitter Voltage | V_{CEO} | $I_C = 10\text{mA}, I_B = 0$ | 500 | – | – | V |
| DC Current Gain | h_{FE1} | $V_{CE} = 5\text{V}, I_C = 0.1\text{A}$ | 15 | – | – | |
| | h_{FE2} | $V_{CE} = 5\text{V}, I_C = 4\text{A}$ | 8 | – | – | |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 4\text{A}, I_B = 0.8\text{A}$ | – | – | 1.0 | V |
| Base–Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = 4\text{A}, I_B = 0.8\text{A}$ | – | – | 1.5 | V |
| Transition Frequency | f_T | $V_{CE} = 10\text{V}, I_C = 0.5\text{A}, f = 1\text{MHz}$ | – | 20 | – | MHz |
| Turn–On Time | t_{on} | $I_C = 4\text{A},$ $I_{B1} = 0.8\text{A}, I_{B2} = -1.6\text{A},$ $V_{CC} = 200\text{V}$ | – | – | 1.0 | μs |
| Storage Time | t_{stg} | | – | – | 3.0 | μs |
| Collector Current Fall Time | t_f | | – | – | 0.3 | μs |



NOTE: Tab is isolated