

## NTE2588 Silicon NPN Transistor Horizontal Output for HDTV

### **Features:**

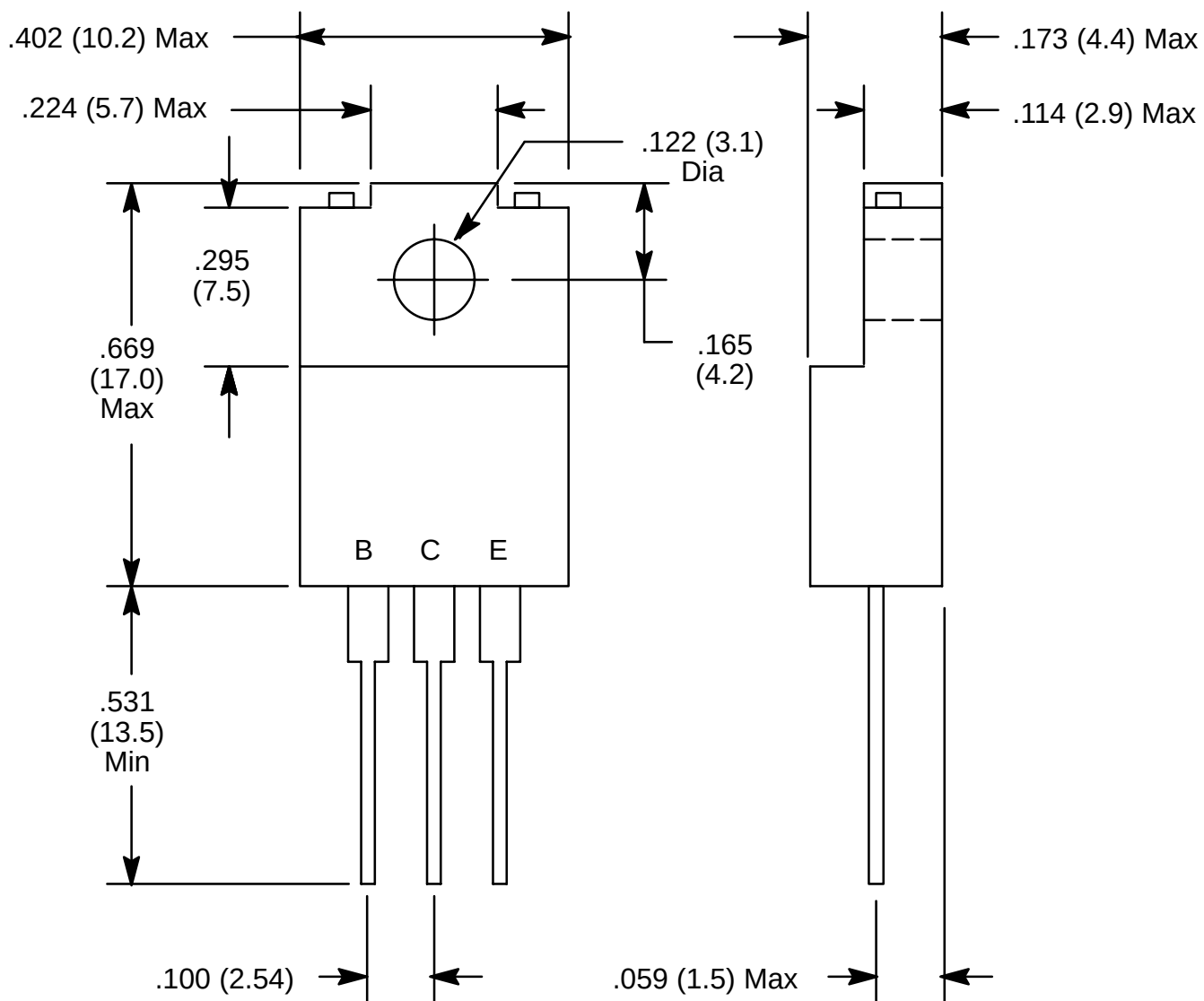
- High Breakdown Voltage:  $V_{(BR)CEO} = 1200V$  Min
- Isolated TO220 Type Package

### **Absolute Maximum Ratings:** ( $T_A = +25^\circ C$ unless otherwise specified)

|                                                          |                |
|----------------------------------------------------------|----------------|
| Collector–Base Voltage, $V_{CBO}$                        | 1500V          |
| Collector–Emitter Voltage, $V_{CEO}$                     | 1200V          |
| Emitter–Base Voltage, $V_{EBO}$                          | 5V             |
| Collector Current, $I_C$                                 |                |
| Continuous                                               | 30mA           |
| Peak                                                     | 100mA          |
| Collector Power Dissipation, $P_C$                       | 2W             |
| Operating Junction Temperature, $T_J$                    | +150°C         |
| Storage Temperature Range, $T_{stg}$                     | –55° to +150°C |
| Maximum Thermal Resistance, Junction–to–Case, $R_{thJC}$ | 8.3°C/W        |

### **Electrical Characteristics:** ( $T_C = +25^\circ C$ unless otherwise specified)

| Parameter                            | Symbol        | Test Conditions              | Min  | Typ | Max | Unit    |
|--------------------------------------|---------------|------------------------------|------|-----|-----|---------|
| Collector Cutoff Current             | $I_{CBO}$     | $V_{CB} = 1200V, I_E = 0$    | –    | –   | 1   | $\mu A$ |
| Emitter Cutoff Current               | $I_{EBO}$     | $V_{EB} = 4V, I_C = 0$       | –    |     | 1   | $\mu A$ |
| DC Current Gain                      | $h_{FE}$      | $V_{CE} = 5V, I_C = 1.5A$    | 10   | –   | 60  |         |
| Gain Bandwidth Product               | $f_T$         | $V_{CE} = 10V, I_C = 1.5A$   | –    | 6   | –   | MHz     |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 3mA, I_B = 0.6mA$     | –    | –   | 5   | V       |
| Base–Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = 3mA, I_B = 0.6mA$     | –    | –   | 2   | V       |
| Collector–Base Breakdown Voltage     | $V_{(BR)CBO}$ | $I_C = 100\mu A, I_E = 0$    | 1500 | –   | –   | V       |
| Collector–Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = 1mA, R_{BE} = \infty$ | 1200 | –   | –   | V       |
| Emitter–Base Breakdown Voltage       | $V_{(BR)EBO}$ | $I_E = 100\mu A, I_C = 0$    | 5    | –   | –   | V       |
| Output Capacitance                   | $C_{ob}$      | $V_{CB} = 100V, f = 1MHz$    | –    | 2.0 | –   | pF      |



**NOTE:** Tab is isolated