



ELECTRONICS, INC.  
44 FARRAND STREET  
BLOOMFIELD, NJ 07003  
(973) 748-5089  
<http://www.nteinc.com>

## NTE2661 Silicon NPN Transistor Horizontal Deflection Output for HDTV

### **Features:**

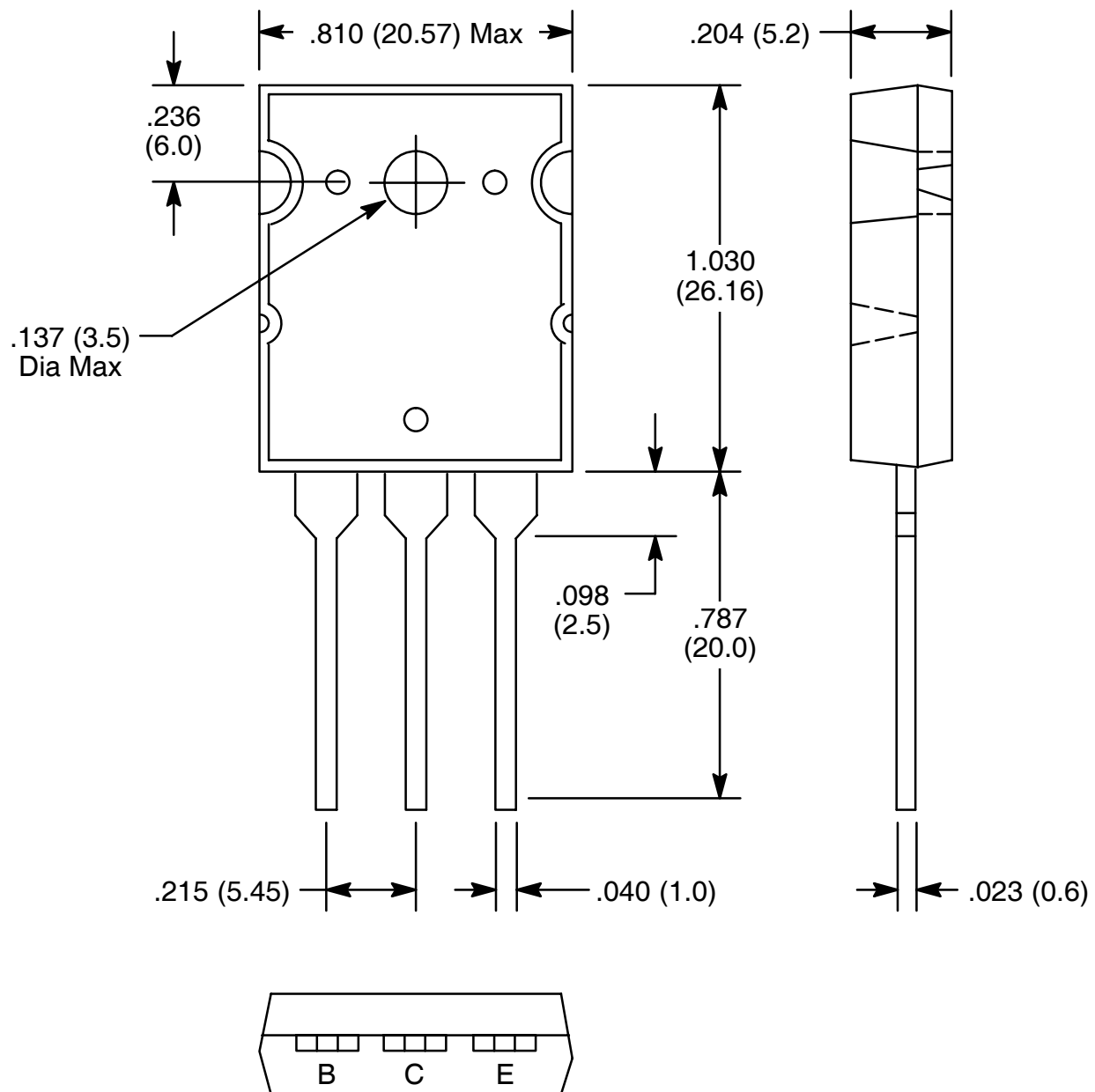
- High Speed:  $t_f = 0.15\mu s$  Typ
- High Breakdown Voltage:  $V_{CBO} = 1700V$
- Low Saturation Voltage:  $V_{CE(sat)} = 3V$  Max

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

|                                                            |                |
|------------------------------------------------------------|----------------|
| Collector-to-Base Voltage, $V_{CBO}$                       | 1700V          |
| Collector-to-Emitter Voltage, $V_{CEO}$                    | 600V           |
| Emitter-to-Base Voltage, $V_{EBO}$                         | 5V             |
| Collector Current, $I_C$                                   |                |
| Continuous                                                 | 20A            |
| Peak                                                       | 40A            |
| Base Current, $I_B$                                        | 10A            |
| Collector Power Dissipation ( $T_C = +25^\circ C$ ), $P_C$ | 200W           |
| Operating Junction Temperature, $T_J$                      | +150°C         |
| Storage Temperature Range, $T_{stg}$                       | -55° to +150°C |

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

| Parameter                            | Symbol        | Test Conditions                                      | Min | Typ  | Max | Unit    |
|--------------------------------------|---------------|------------------------------------------------------|-----|------|-----|---------|
| Collector Cutoff Current             | $I_{CBO}$     | $V_{CB} = 1700V, I_E = 0$                            | –   | –    | 1.0 | mA      |
| Emitter Cutoff Current               | $I_{EBO}$     | $V_{EB} = 5V, I_C = 0$                               | –   | –    | 10  | $\mu A$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = 10mA, I_B = 0$                                | 600 | –    | –   | V       |
| DC Current Gain                      | $h_{FE}$      | $V_{CE} = 5V, I_C = 2A$                              | 10  | –    | 30  | –       |
|                                      |               | $V_{CE} = 5V, I_C = 11A$                             | 4.5 | –    | 8.5 |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 11A, I_B = 2.75A$                             | –   | –    | 3   | V       |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = 11A, I_B = 2.75A$                             | –   | 1.0  | 1.3 | V       |
| Transition Frequency                 | $f_T$         | $V_{CE} = 10V, I_E = 0.1A$                           | –   | 1.7  | –   | MHz     |
| Collector Output capacitance         | $C_{ob}$      | $V_{CB} = 10V, I_E = 0, f = 1MHz$                    | –   | 290  | –   | pF      |
| Storage Time                         | $t_{stg}$     | $I_C(\text{peak}) = 10A, I_{B1} = 1.8A, f_H = 64kHz$ | –   | 2.5  | 4.0 | $\mu s$ |
| Fall Time                            | $t_f$         |                                                      | –   | 0.15 | 0.3 | $\mu s$ |



**NOTE:** Pin2 connected to heatsink