



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



## NTE2324

### Silicon NPN Transistor

### Color TV Horizontal Deflection Output

### TO3PML Type Package

**Applications:**

- Color TV Horizontal Deflection Output

**Features:**

- High Speed ( $t_f = 100\text{nsec}$ )
- High Breakdown Voltage ( $V_{CBO} = 1500\text{V}$ )
- High Reliability (adoption of HVP process)

**Absolute Maximum Ratings:**

|  |                |
|--|----------------|
| Collector to Base Voltage, $V_{CBO}$ .....                       | 1500V          |
| Collector to Emitter Voltage, $V_{CEO}$ .....                    | 800V           |
| Emitter to Base Voltage, $V_{EBO}$ .....                         | 6V             |
| Collector Current, $I_C$   |                |
| Continuous .....   | 8A             |
| Peak .....   | 30A            |
| Collector Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ ..... | 70W            |
| Junction Temperature, $T_J$ .....                                | +150°C         |
| Storage Temperature Range, $T_{stg}$ .....                       | -55° to +150°C |

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

| Parameter                            | Symbol         | Test Conditions   | Min | Typ | Max | Unit          |
|--------------------------------------|----------------|---|-----|-----|-----|---------------|
| Collector Cutoff Current             | $I_{CES}$      | $V_{CE} = 1500\text{V}$                                       | -   | -   | 1.0 | mA            |
|                                      | $I_{CBO}$      | $V_{CB} = 800\text{V}$  | -   | -   | 10  | $\mu\text{A}$ |
| Collector Sustain Voltage            | $V_{CEO(sus)}$ | $I_C = 100\text{mA}, I_B = 0$                                 | 800 | -   | -   | V             |
| Emitter Cutoff Current               | $I_{EBO}$      | $V_{EB} = 4\text{V}$  | -   | -   | 1.0 | mA            |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$  | $I_C = 6\text{A}, I_B = 1.2\text{A}$                          | -   | -   | 5.0 | V             |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$  | $I_C = 6\text{A}, I_B = 1.2\text{A}$                          | -   | -   | 1.5 | V             |
| DC Current Gain                      | $h_{FE}$       | $V_{CE} = 5\text{V}, I_C = 1\text{A}$                         | 8   | -   | -   |               |
|                                      |                | $V_{CE} = 5\text{V}, I_C = 6\text{A}$                         | 5   | -   | 13  |               |
| Fall Time                            | $t_f$          | $I_C = 6\text{A}, I_{B1} = 1.2\text{A}, I_{B2} = 2.4\text{A}$ | -   | 0.1 | 0.3 | $\mu\text{s}$ |

