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# NTE2679

## Silicon NPN Transistor

### Power, High Voltage w/Built-In Damper Diode

### TO-220Full Pack

#### **Features:**

- High Breakdown Voltage:  $V_{CBO} = 1500V$  Min
- Wide Area of Safe Operation
- Built-In Damper Diode

#### **Applications:**

- Horizontal Deflection Output for TV or CRT Monitor

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

|                                       |                |
|---------------------------------------|----------------|
| Collector-Base Voltage, $V_{CBO}$     | 1500V          |
| Collector-Emitter Voltage, $V_{CEO}$  | 1500V          |
| Emitter-Base Voltage, $V_{EBO}$       | 5V             |
| Collector Current, $I_C$              |                |
| Continuous                            | 6A             |
| Peak                                  | 9A             |
| Continuous Base Current, $I_B$        | 3A             |
| Collector Power Dissipation, $P_C$    |                |
| $T_A = +25^\circ C$                   | 2W             |
| $T_C = +25^\circ C$                   | 30W            |
| Operating Junction Temperature, $T_J$ | +150°C         |
| Storage Temperature Range, $T_{stg}$  | -55° to +150°C |

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

| Parameter                               | Symbol        | Test Conditions                            | Min | Typ | Max | Unit    |
|-----------------------------------------|---------------|--------------------------------------------|-----|-----|-----|---------|
| Emitter-Base Breakdown Voltage          | $V_{(BR)EBO}$ | $I_E = 500mA, I_C = 0$                     | 5   | -   | -   | V       |
| Collector-Emitter Saturation Voltage    | $V_{CE(sat)}$ | $I_C = 3A, I_B = 750mA$                    | -   | -   | 2.5 | V       |
| Base-Emitter Saturation Voltage         | $V_{BE(sat)}$ | $I_C = 3A, I_B = 750mA$                    | -   | -   | 1.5 | V       |
| Collector Cutoff Current                | $I_{CBO}$     | $V_{CB} = 1000V, I_E = 0$                  | -   | -   | 50  | $\mu A$ |
|                                         |               | $V_{CB} = 1500V, I_E = 0$                  | -   | -   | 1.0 | mA      |
| DC Current Gain                         | $h_{FE}$      | $I_C = 3A, V_{CE} = 5V$                    | 5   | -   | 12  |         |
| Collector-Emitter Diode Forward Voltage | $V_{ECF}$     | $I_F = 3A$                                 | -   | -   | 2.0 | V       |
| Current Gain Bandwidth Product          | $f_T$         | $I_C = 100mA, V_{CE} = 10V, f = 0.5MHz$    | -   | 3   | -   | MHz     |
| Storage Time                            | $t_{stg}$     | Resistive Load                             | -   | -   | 5.0 | $\mu s$ |
| Fall Time                               | $t_f$         | $I_C = 3A, I_{B1} = 750mA, I_{B2} = -1.5A$ | -   | -   | 0.5 | $\mu s$ |

Rev. 6-15

