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## NTE2698 Silicon NPN Transistor General Purpose TO3PN Type Package

### Features:

- Low Collector Saturation Voltage:  $V_{CE(sat)} = 0.5V$  Max @  $I_C = 3A$
- Collector-Emitter Breakdown Voltage:  $V_{(BR)CEO} = 120V$  Min
- Good Linearity of  $h_{FE}$

### Applications:

- Humidifier
- DC/DC Converter
- General Purpose Power Amplifiers

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

|  |                |
|--|----------------|
| Collector-Base Voltage, $V_{CBO}$ .....                          | 200V           |
| Collector-Emitter Voltage, $V_{CEO}$ .....                       | 120V           |
| Emitter-Base Voltage, $V_{EBO}$ .....                            | 8V             |
| Collector Current, $I_C$   |                |
| Continuous .....   | 7A             |
| Pulse .....  | 14A            |
| Continuous Base Current, $I_B$ .....                             | 3A             |
| Collector Power Dissipation ( $T_C = +25^\circ C$ ), $P_C$ ..... | 70W            |
| 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    |
|--------------------------------------|---------------|--------------------------|-----|-----|-----|---------|
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = 50mA, I_B = 0$    | 120 | -   | -   | V       |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 3A, I_B = 300mA$  | -   | -   | 0.5 | V       |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C = 3A, I_B = 300mA$  | -   | -   | 1.2 | V       |
| Collector Cut-Off Current            | $I_{CBO}$     | $V_{CB} = 200V, I_E = 0$ | -   | -   | 100 | $\mu A$ |
| Emitter Cut-Off Current              | $I_{EBO}$     | $V_{EB} = 8V, I_C = 0$   | -   | -   | 100 | $\mu A$ |
| DC Current Gain                      | $h_{FE}$      | $I_C = 3A, V_{CE} = 4V$  | 100 | -   | 200 |         |



