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## 2N6727

### Silicon PNP Transistor

### General Purpose Power Amp, Switch

### TO-237 Type Package

**Description:**

The 2N6727 is a silicon PNP power transistors in a TO-237 type package designed for general purpose power amplifier and switching applications.

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

|   |                                     |
|---|-------------------------------------|
| Collector-Base Voltage, $V_{CBO}$ .....                   | 50V                                 |
| Collector-Emitter Voltage, $V_{CEO}$ .....                | 40V                                 |
| Emitter-Base Voltage, $V_{EBO}$ .....                     | 5V                                  |
| Continuous Collector Current, $I_C$ .....                 | 2A                                  |
| Continuous Base Current, $I_B$ .....                      | 500mA                               |
| Power Dissipation, $P_D$                                  |                                     |
| $T_A = +25^\circ\text{C}$ .....                           | 1W                                  |
| $T_C = +25^\circ\text{C}$ .....                           | 2W                                  |
| Operating Junction Temperature Range, $T_J$ .....         | $-65^\circ$ to $+150^\circ\text{C}$ |
| Storage Temperature Range, $T_{stg}$ .....                | $-65^\circ$ to $+150^\circ\text{C}$ |
| Thermal Resistance, Junction-to-Ambient, $R_{thJA}$ ..... | $125^\circ\text{C/W}$               |
| Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....    | $62.5^\circ\text{C/W}$              |

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

| Parameter                            | Symbol          | Condition  | Min | Typ | Max | Unit          |
|--------------------------------------|-----------------|--|-----|-----|-----|---------------|
| Collector-Base Breakdown Voltage     | $V_{(BR)CBO}$   | $I_C = 1\text{mA}$   | 50  | -   | -   | V             |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C = 10\text{mA}$  | 40  | -   | -   | V             |
| Emitter-Base Breakdown Voltage       | $V_{(BR)EBO}$   | $I_E = 1\text{mA}$   | 5   | -   | -   | V             |
| Collector Cutoff Current             | $I_{CBO}$       | $V_{CB} = 50\text{V}$                                      | -   | -   | 0.1 | $\mu\text{A}$ |
| Emitter Cutoff Current               | $I_{EBO}$       | $V_{EB} = 5\text{V}$                                       | -   | -   | 0.1 | $\mu\text{A}$ |
| DC Current Gain                      | h <sub>FE</sub> | $V_{CE} = 1\text{V}, I_C = 100\text{mA}$                   | 60  | -   | -   |               |
|                                      |                 | $V_{CE} = 1\text{V}, I_C = 1\text{A}$                      | 50  | -   | 250 |               |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C = 1\text{A}, I_B = 100\text{mA}$                      | -   | -   | 0.5 | V             |
| Base-Emitter ON Voltage              | $V_{BE(on)}$    | $I_C = 1\text{A}, V_{CE} = 1\text{V}$                      | -   | -   | 1.2 | V             |
| Transition Frequency                 | $f_T$           | $V_{CE} = 10\text{V}, I_C = 50\text{mA}, f = 20\text{MHz}$ | 50  | -   | 500 | MHz           |
| Output Capacitance                   | $C_{ob}$        | $V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$            | -   | -   | 30  | pF            |

