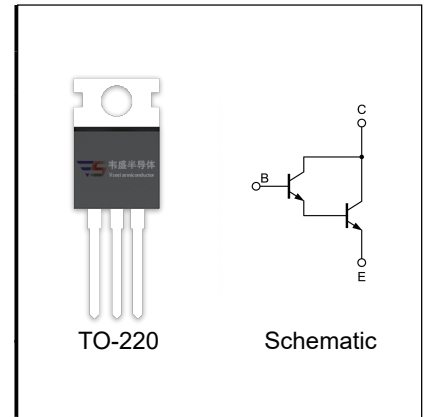


## TIP127 DARLINGTON TRANSISTOR (PNP)

### FEATURES

- Medium Power Complementary Silicon Transistors



### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

| Symbol                            | Parameter                                        | Value    | Unit |
|-----------------------------------|--------------------------------------------------|----------|------|
| V <sub>CBO</sub>                  | Collector-Base Voltage                           | -100     | V    |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                        | -100     | V    |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                             | -5       | V    |
| I <sub>C</sub>                    | Collector Current -Continuous                    | -5       | A    |
| P <sub>C</sub>                    | Collector Power Dissipation                      | 2        | W    |
| R <sub>θJA</sub>                  | Thermal Resistance, Junction to Ambient          | 62.5     | °C/W |
| R <sub>θJC</sub>                  | Thermal Resistance, Junction to Case             | 1.92     | °C/W |
| T <sub>J</sub> , T <sub>stg</sub> | Operation Junction and Storage Temperature Range | -55~+150 | °C   |

| Parameter                            | Symbol         | Test conditions                                      | Min  | Max      | Unit |
|--------------------------------------|----------------|------------------------------------------------------|------|----------|------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$  | $I_C = -1mA, I_E = 0$                                | -100 |          | V    |
| Collector-emitter breakdown voltage  | $V_{CEO(SUS)}$ | $I_C = -30mA, I_B = 0$                               | -100 |          | V    |
| Collector cut-off current            | $I_{CBO}$      | $V_{CB} = -100V, I_E = 0$                            |      | -0.2     | mA   |
| Collector cut-off current            | $I_{CEO}$      | $V_{CE} = -50V, I_B = 0$                             |      | -0.5     | mA   |
| Emitter cut-off current              | $I_{EBO}$      | $V_{EB} = -5V, I_C = 0$                              |      | -2       | mA   |
| DC current gain                      | $h_{FE(1)}$    | $V_{CE} = -3V, I_C = -0.5A$                          | 1000 |          |      |
|                                      | $h_{FE(2)}$    | $V_{CE} = -3V, I_C = -3A$                            | 1000 | 12000    |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$  | $I_C = -3A, I_B = -12mA$<br>$I_C = -5A, I_B = -20mA$ |      | -2<br>-4 | V    |
| Base-emitter voltage                 | $V_{BE}$       | $V_{CE} = -3V, I_C = -3A$                            |      | -2.5     | V    |
| Output Capacitance                   | $C_{ob}$       | $V_{CB} = -10V, I_E = 0, f = 0.1MHz$                 |      | 300      | pF   |

