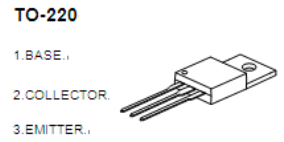
# TIP127 Darlington TRANSISTOR (PNP)




## FEATURES

- Medium Power Complementary Silicon Transistors

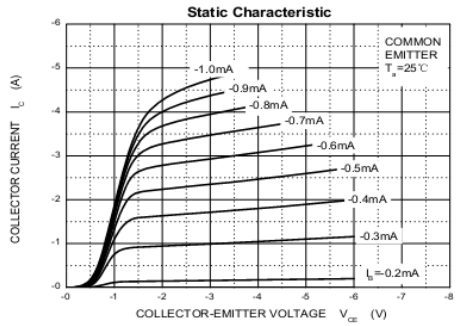
## MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

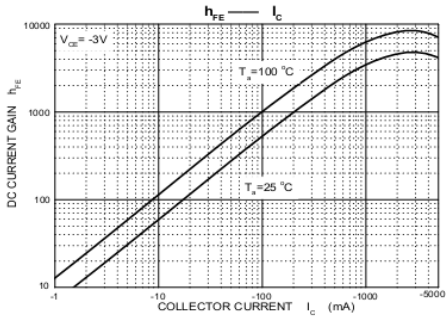
| Symbol | Parameter | TIP122<br>TIP127 | Unit |
|---|---|---|---|
| VCBO | Collector-Base Voltage | 100 | V |
| VCEO | Collector-Emitter Voltage | 100 | V |
| VEBO | Emitter-Base Voltage | 5 | V |
| IC | Collector Current -Continuous | 5 | A |
| PC | Collector Power Dissipation | 2 | W |
| R6JA | Thermal Resistance From Junction To Ambient | 62.5 | ℃/W |
| R6JC | Thermal Resistance Junction to Case | 1.92 | ℃/W |
| TJ | Junction Temperature | 150 | ℃ |
| Tstg | Storage Temperature Range | -55to+150 | ℃ |

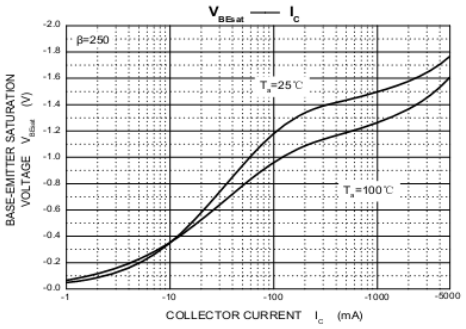
## ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

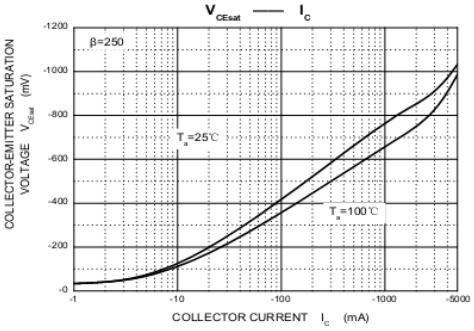
| Parameter | Symbol | Test conditions | Min | Max | Unit |
|---|---|---|---|---|---|
| Collector-base breakdown voltage | V(BR)CBO | IC=1mA,IE=0 | 100 | | V |
| Collector-emitter breakdown voltage | V(BR)CEO | IC=30mA,IB=0 | 100 | | V |
| Collector cut-off current | ICBO | VCB=100V,IE =0 | | 0.2 | mA |
| Collector cut-off current | ICEO | VCE=50V,IE =0 | | 0.5 | mA |
| Emitter cut-off current | IEBO | VEB=5V,IC=0 | | 2 | mA |
| DC current gain | hFE(1) | VCE=3V,IC=0.5A | 1000 | | |
| | hFE(2) | VCE=3V,IC=3A | 1000 | | |
| Collector-emitter saturation voltage | VCE(sat) | IC=3A,IB=12mA<br>IC=5A,IB=20mA | | 2<br>4 | V |
| Base-emitter voltage | VBE | VCE=3V,IC=3A | | 2.5 | V |
| Collector output capacitance TIP127<br>TIP122 | $C_{ob}$ | $V_{CB}$=10V,I =0,<br>f=0.1MHz | | 300<br>200 | PF |

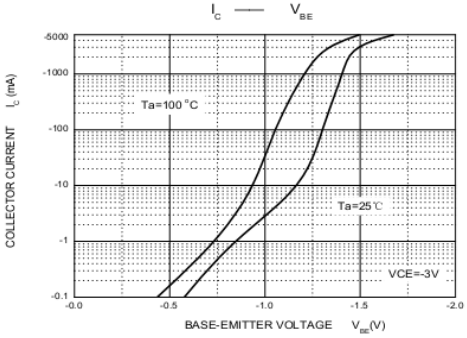
# Typical Characteristics TIP127

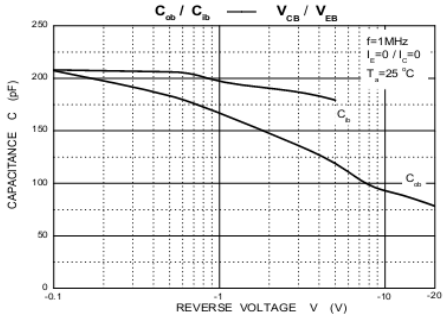


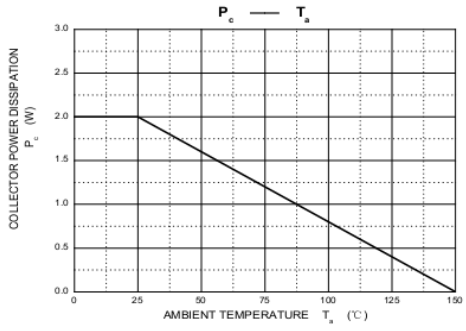



TO-220 Package Outline Dimensions UNIT: mm