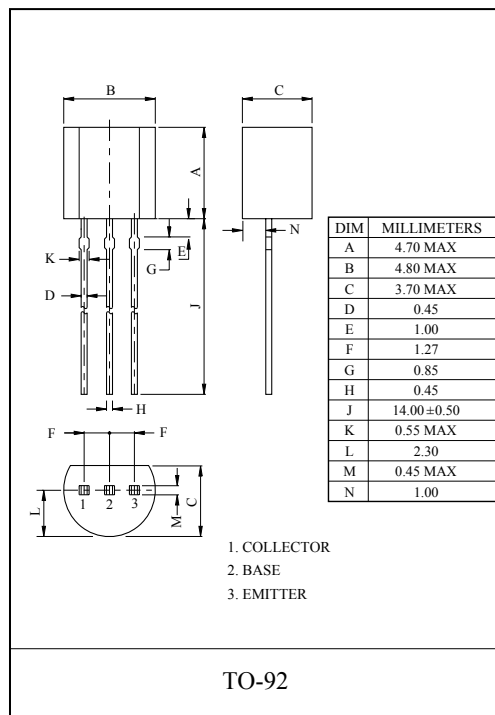


GENERAL PURPOSE HIGH DARLINGTON TRANSISTOR.

MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|-----------|------|
| Collector-Base Voltage | V_{CBO} | 40 | V |
| Collector-Emitter Voltage | V_{CEO} | 30 | V |
| Emitter-Base Voltage | V_{EBO} | 10 | V |
| Collector Current | I_C | 500 | mA |
| Collector Power Dissipation | P_C | 625 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{stg} | -55 ~ 150 | °C |



ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|----------------------------------|------|------|------|---------|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=0.1mA, I_E=0$ | 40 | - | - | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$ | 30 | - | - | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=1.0mA, I_C=0$ | 10 | - | - | V |
| Collector Cut-off Current | I_{CBO} | $V_{CB}=40V, I_E=0$ | - | - | 1.0 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=10V, I_C=0$ | - | - | 1.0 | μA |
| DC Current Gain | h_{FE} | $I_C=100mA, V_{CE}=2V$ | 30k | - | - | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100mA, I_B=1mA$ | - | - | 1.0 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=100mA, I_B=1mA$ | - | 1.5 | 2.0 | V |
| Current Gain Bandwidth Product | f_T | $I_C=100mA, V_{CE}=2V, f=100MHz$ | - | 220 | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10V, f=1MHz, I_E=0$ | - | 5.0 | - | pF |

BC517

