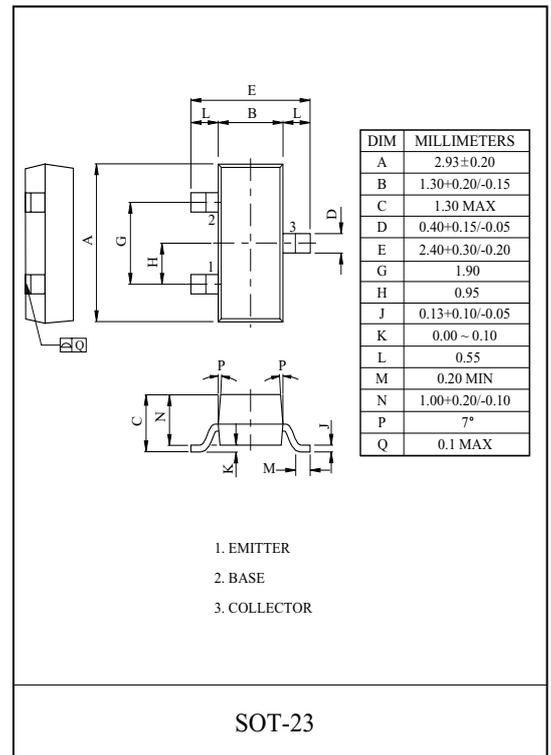


GENERAL PURPOSE HIGH DARLINGTON TRANSISTOR.

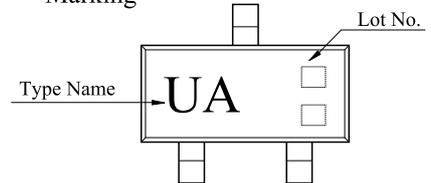
MAXIMUM RATING (Ta=25)

| 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 | 400 | mA |
| Collector Power Dissipation | P_C^* | 350 | mW |
| Junction Temperature | T_j | 150 | |
| Storage Temperature | T_{stg} | -55 150 | |

* : Package Mounted On 99.5% Alumina $10 \times 8 \times 0.6$ mm.



Marking

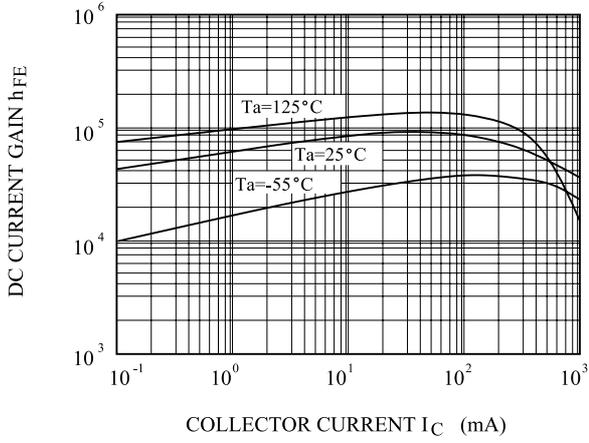


ELECTRICAL CHARACTERISTICS (Ta=25)

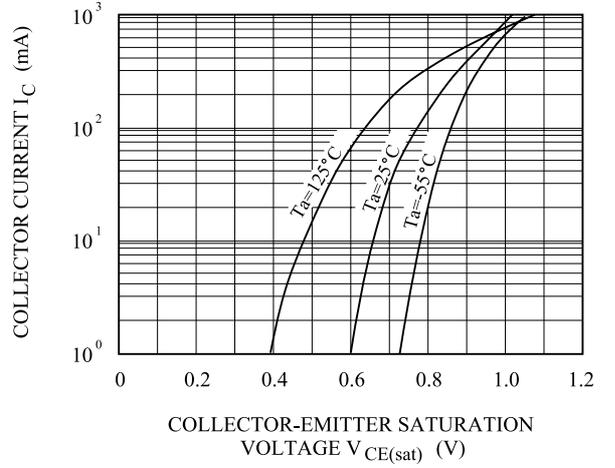
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|----------------------------------|------|------|------|---------|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=0.1mA$ | 40 | - | - | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=10mA$ | 30 | - | - | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=-1.0mA$ | 10 | - | - | V |
| Collector Cut-off Current | I_{CBO} | $V_{CB}=40V$ | - | - | 1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=10V$ | - | - | 1 | 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 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=100mA, I_B=10mA$ | - | 1.5 | 2 | V |
| Current Gain Bandwidth Product | f_T | $I_C=100mA, f=100MHz, V_{CE}=2V$ | - | 220 | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10V, f=1MHz$ | - | 5 | - | pF |

MMBTA517

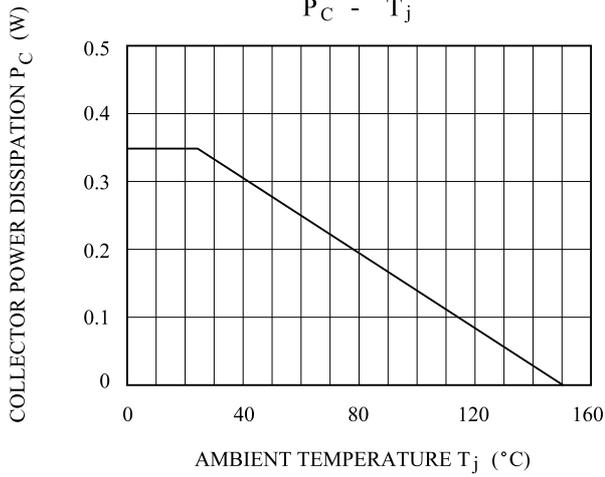
$h_{FE} - I_C$



$I_C - V_{CE(sat)}$



$P_C - T_j$



$I_C - V_{BE}$

