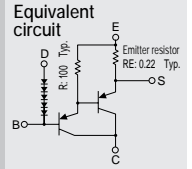


Built-in temperature compensation diodes
Built-in emitter resistor
Darlington

SAP16P



(Complement to type SAP16N)

Application: Audio

■ Absolute maximum ratings (Ta=25°C)

| Symbol | Ratings | Unit |
|-------------------------------|---------------------------|------|
| V _{CB0} | -160 | V |
| V _{CEO} | -160 | V |
| V _{EBO} | -5 | V |
| I _C | -15 | A |
| I _B | -1 | A |
| P _C | 150(T _C =25°C) | W |
| D _I I _F | 10 | mA |
| T _J | 150 | °C |
| T _{stg} | -40 to +150 | °C |

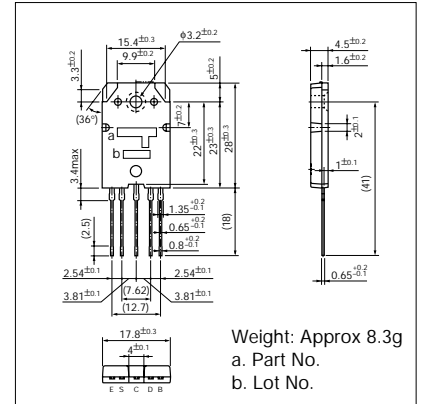
■ Electrical Characteristics (Ta=25°C)

| Symbol | Conditions | Ratings | | | Unit |
|-------------------------------|--|---------|------|-------|------|
| | | min | typ | max | |
| I _{CB0} | V _{CB} = -160V | | | -100 | μA |
| I _{EBO} | V _{EB} = -5V | | | -100 | μA |
| V _{CEO} | I _C = -30mA | -160 | | | V |
| h _{FE} * | V _{CE} = -4V, I _C = -10A | 5000 | | 20000 | |
| V _{CE(sat)} | I _C = -10A, I _B = -10mA | | | -2.0 | V |
| V _{BE(sat)} | I _C = -10A, I _B = -10mA | | | -2.5 | V |
| V _{BE} | V _{CE} = -20V, I _C = -40mA | | 1200 | | mV |
| D _I V _F | I _F = 2.5mA | | 1540 | | mV |
| RE | I _E = 1A | 0.176 | 0.22 | 0.264 | Ω |
| REB | | 90 | 100 | 110 | Ω |

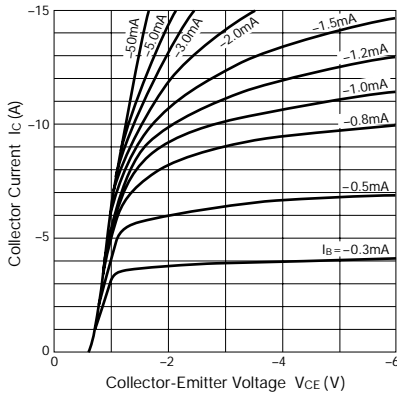
*h_{FE} Rank \bar{O} (5000 to 12000), Y (8000 to 20000)

External Dimensions

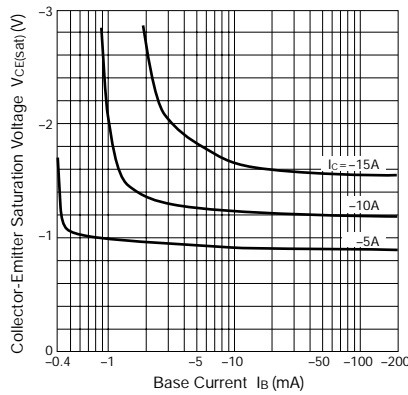
(Unit: mm)



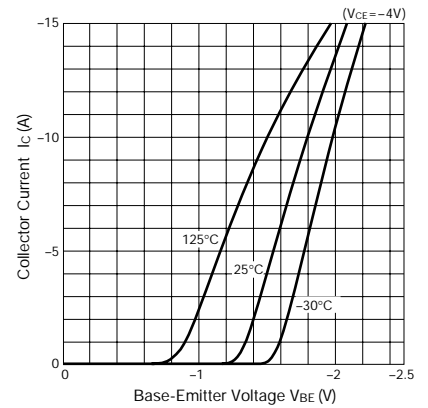
I_C - V_{CE} Characteristics (Typical)



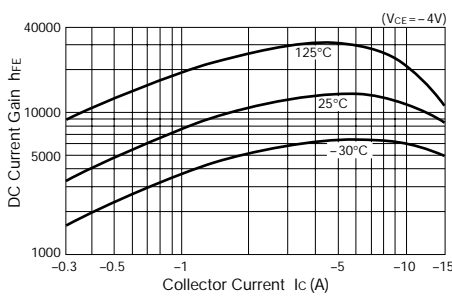
V_{CE(sat)} - I_B Characteristics (Typical)



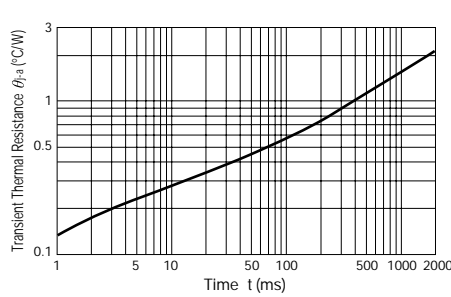
I_C - V_{BE} Temperature Characteristics (Typical)



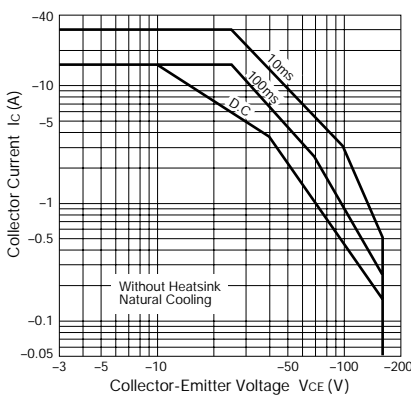
h_{FE} - I_C Characteristics (Typical)



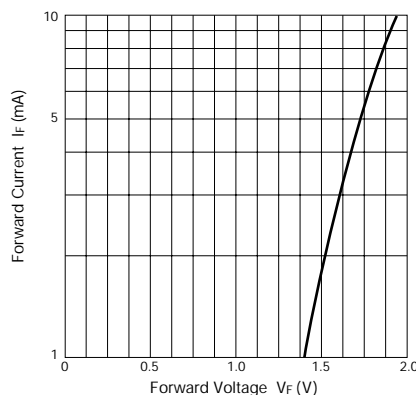
θ_{J-a} - t Characteristics



Safe Operating Area (Single Pulse)



D_I I_F - V_F Characteristics (Typical)



P_C - T_a Derating

