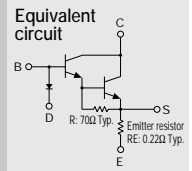


Built-in temperature compensation diodes Built-in emitter resistor Darlington

SAP09N



(Complement to type SAP09P)

Application: Audio

Absolute maximum ratings (Ta=25°C)

| Symbol | Ratings | Unit |
|------------------|---------------------------|------|
| V _{CB0} | 150 | V |
| V _{CEO} | 150 | V |
| V _{EBO} | 5 | V |
| I _C | 10 | A |
| I _B | 1 | A |
| P _C | 80 (T _C =25°C) | W |
| D _I F | 10 | mA |
| T _J | 150 | °C |
| T _{stg} | -40 to +150 | °C |

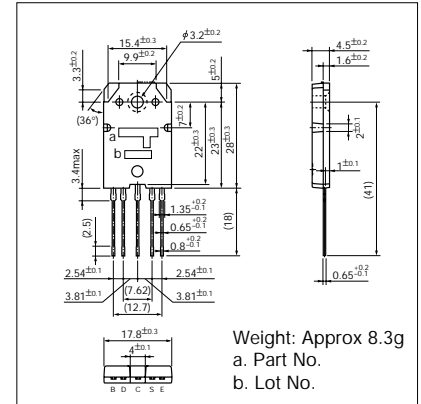
Electrical Characteristics (Ta=25°C)

| Symbol | Conditions | Ratings | | | Unit |
|-------------------------------|--|---------|------|-------|------|
| | | min | typ | max | |
| I _{CB0} | V _{CB} =150V | | | 100 | μA |
| I _{EBO} | V _{EB} =5V | | | 100 | μA |
| V _{CEO} | I _C =30mA | 150 | | | V |
| h _{FE} * | V _{CE} =4V, I _C =6A | 5000 | | 20000 | |
| V _{CE(sat)} | I _C =6A, I _B =6mA | | | 2.0 | V |
| V _{BE(sat)} | I _C =6A, I _B =6mA | | | 2.5 | V |
| V _{BE} | V _{CE} =20V, I _C =40mA | | 1220 | | mV |
| D _I V _F | I _F =2.5mA | | 705 | | mV |
| R _E | I _E =1A | 0.176 | 0.22 | 0.264 | Ω |

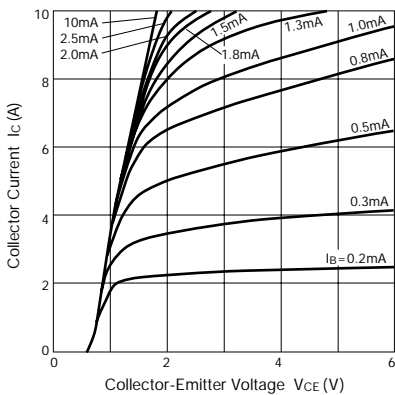
*h_{FE} Rank $\bar{0}$ (5000 to 12000), Y (8000 to 20000)

External Dimensions

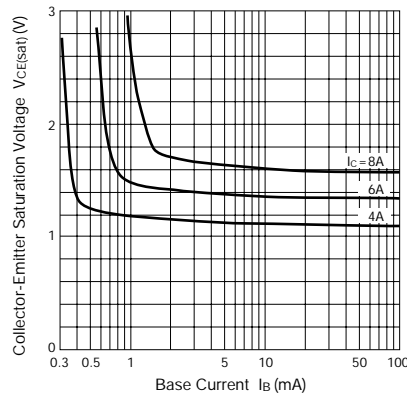
(Unit: mm)



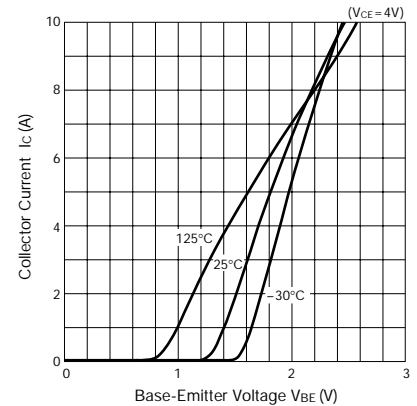
I_C-V_{CE} Characteristics (Typical)



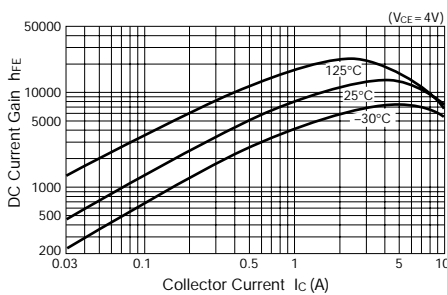
V_{CE(sat)}-I_B Characteristics (Typical)



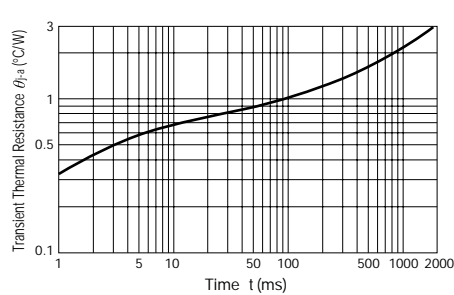
I_C-V_{BE} Temperature Characteristics



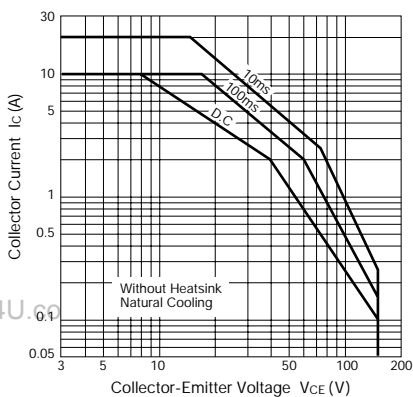
h_{FE}-I_C Characteristics (Typical)



θ_{j-a}-t Characteristics



Safe Operating Area (Single Pulse)



P_C-T_a Derating

