

# 2SC4466

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1693)

Application : Audio and General Purpose

■ Absolute maximum ratings (Ta=25°C)

| Symbol           | Ratings                  | Unit |
|------------------|--------------------------|------|
| V <sub>CB0</sub> | 120                      | V    |
| V <sub>CEO</sub> | 80                       | V    |
| V <sub>EB0</sub> | 6                        | V    |
| I <sub>C</sub>   | 6                        | A    |
| I <sub>B</sub>   | 3                        | A    |
| P <sub>C</sub>   | 60(T <sub>C</sub> =25°C) | W    |
| T <sub>J</sub>   | 150                      | °C   |
| T <sub>stg</sub> | -55 to +150              | °C   |

■ Electrical Characteristics (Ta=25°C)

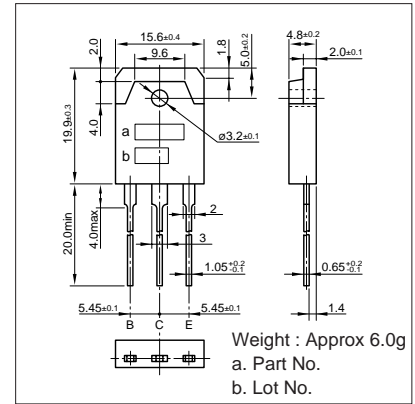
| Symbol               | Conditions                                  | Ratings | Unit |
|----------------------|---|---------|------|
| I <sub>CB0</sub>     | V <sub>CB</sub> =120V                       | 10max   | μA   |
| I <sub>EB0</sub>     | V <sub>EB</sub> =6V                         | 10max   | μA   |
| V <sub>(BR)CEO</sub> | I <sub>C</sub> =50mA                        | 80min   | V    |
| h <sub>FE</sub>      | V <sub>CE</sub> =4V, I <sub>C</sub> =2A     | 50min*  |      |
| V <sub>CE(sat)</sub> | I <sub>C</sub> =2A, I <sub>B</sub> =0.2A    | 1.5max  | V    |
| f <sub>r</sub>       | V <sub>CE</sub> =12V, I <sub>E</sub> =-0.5A | 20typ   | MHz  |
| COB                  | V <sub>CB</sub> =10V, f=1MHz                | 110typ  | pF   |

\*h<sub>FE</sub> Rank O(50to100), P(70to140), Y(90to180)

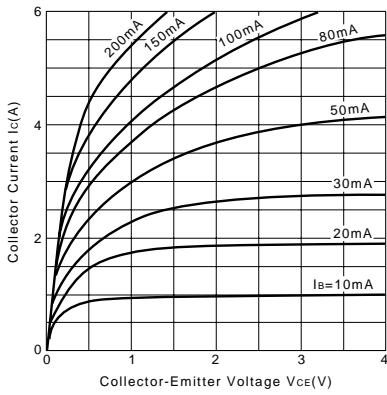
■ Typical Switching Characteristics (Common Emitter)

| V <sub>CC</sub> (V) | R <sub>L</sub> (Ω) | I <sub>C</sub> (A) | V <sub>BB1</sub> (V) | V <sub>BB2</sub> (V) | I <sub>B1</sub> (A) | I <sub>B2</sub> (A) | t <sub>on</sub> (μs) | t <sub>stg</sub> (μs) | t <sub>f</sub> (μs) |
|---------------------|--------------------|--------------------|----------------------|----------------------|---------------------|---------------------|----------------------|-----------------------|---------------------|
| 30                  | 10                 | 3                  | 10                   | -5                   | 0.3                 | -0.3                | 0.16typ              | 2.60typ               | 0.34typ             |

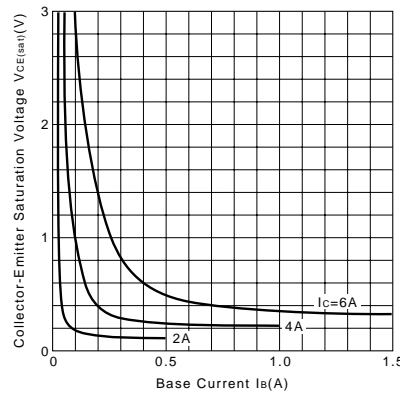
External Dimensions MT-100(TO3P)



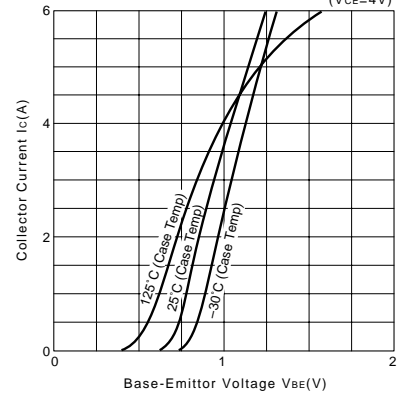
I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)



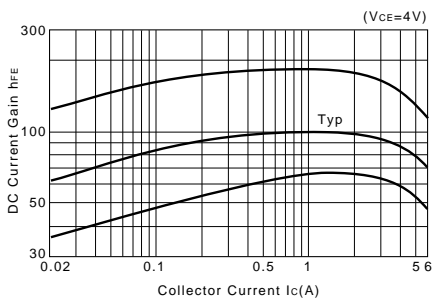
V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)



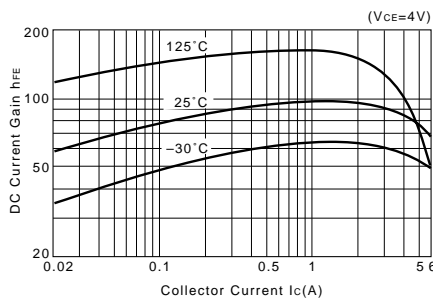
I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)



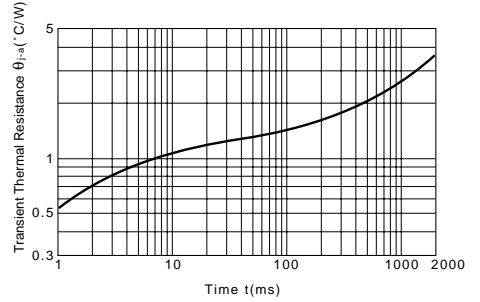
h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)



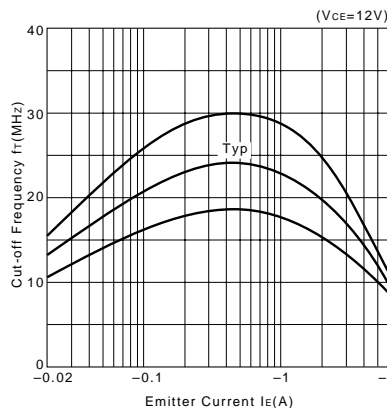
h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)



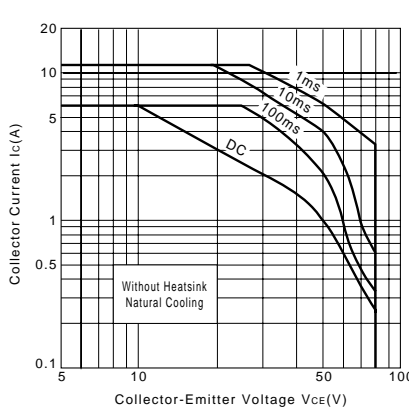
θ<sub>J-a</sub>-t Characteristics



f<sub>r</sub>-I<sub>E</sub> Characteristics (Typical)



Safe Operating Area (Single Pulse)



P<sub>C</sub>-T<sub>a</sub> Derating

