

# 2SC3187

Silicon NPN triple diffusion planer type

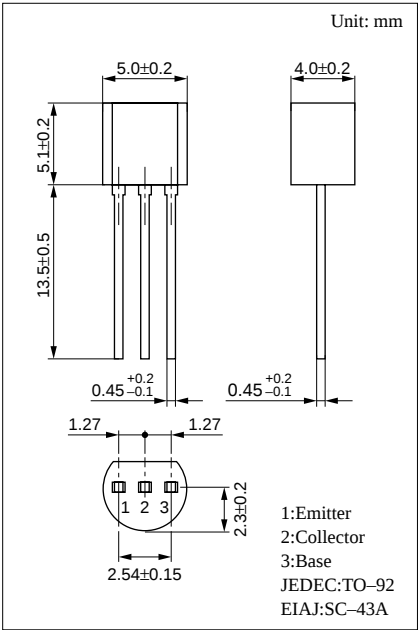
For small TV video output

## ■ Features

- High collector to emitter voltage  $V_{CEO}$ .
- Small collector output capacitance  $C_{ob}$ .

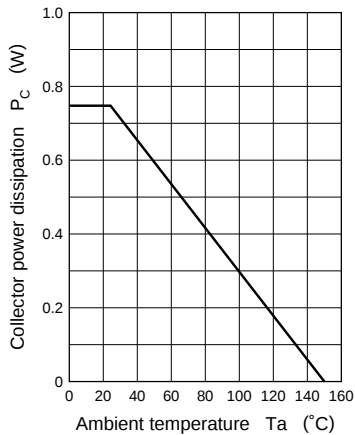
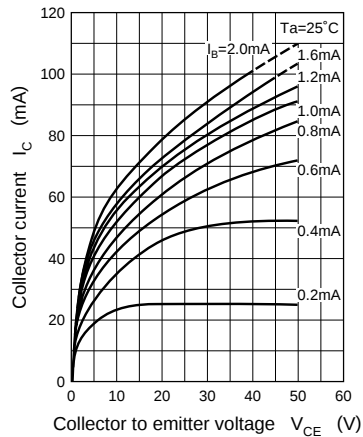
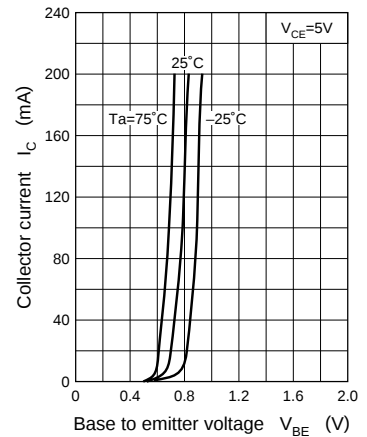
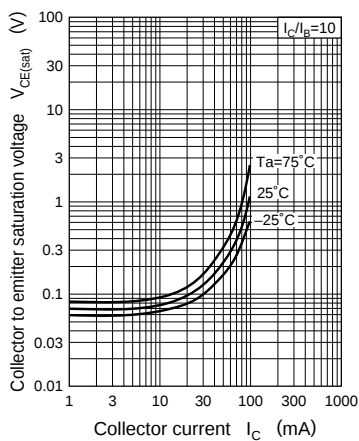
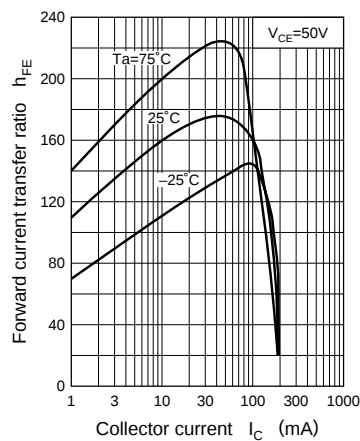
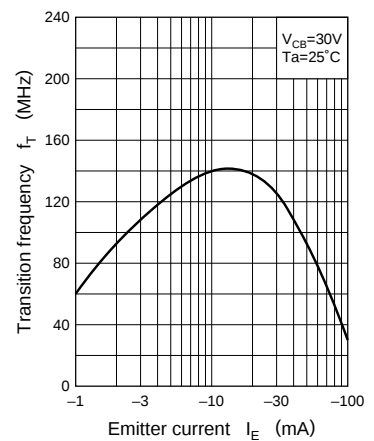
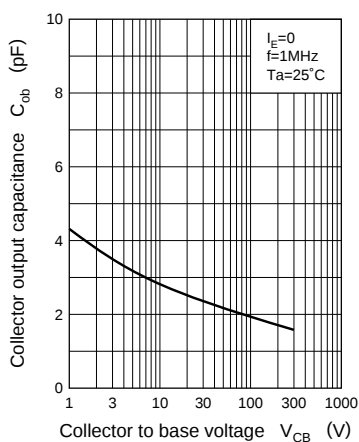
## ■ Absolute Maximum Ratings (Ta=25°C)

| Parameter                    | Symbol    | Ratings    | Unit |
|------------------------------|-----------|------------|------|
| Collector to base voltage    | $V_{CBO}$ | 300        | V    |
| Collector to emitter voltage | $V_{CEO}$ | 300        | V    |
| Emitter to base voltage      | $V_{EBO}$ | 7          | V    |
| Peak collector current       | $I_{CP}$  | 200        | mA   |
| Collector current            | $I_C$     | 100        | mA   |
| Collector power dissipation  | $P_C$     | 750        | mW   |
| Junction temperature         | $T_j$     | 150        | °C   |
| Storage temperature          | $T_{stg}$ | -55 ~ +150 | °C   |



## ■ Electrical Characteristics (Ta=25°C)

| Parameter                               | Symbol        | Conditions                              | min | typ | max | Unit |
|-----------------------------------------|---------------|-----------------------------------------|-----|-----|-----|------|
| Collector to base voltage               | $V_{CBO}$     | $I_C = 10\mu A, I_E = 0$                | 300 |     |     | V    |
| Collector to emitter voltage            | $V_{CEO}$     | $I_C = 100\mu A, I_B = 0$               | 300 |     |     | V    |
| Emitter to base voltage                 | $V_{EBO}$     | $I_E = 10\mu A, I_C = 0$                | 7   |     |     | V    |
| Forward current transfer ratio          | $h_{FE}$      | $V_{CE} = 50V, I_C = 5mA$               | 50  |     | 250 |      |
| Base to emitter voltage                 | $V_{BE}$      | $V_{CE} = 10V, I_C = 30mA$              |     |     | 1.2 | V    |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 30mA, I_B = 3mA$                 |     |     | 1.5 | V    |
| Transition frequency                    | $f_T$         | $V_{CB} = 30V, I_E = -20mA, f = 200MHz$ | 70  | 140 |     | MHz  |
| Collector output capacitance            | $C_{ob}$      | $V_{CB} = 30V, I_E = 0, f = 1MHz$       |     | 1.9 |     | pF   |

$P_C - T_a$  $I_C - V_{CE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 

Area of safe operation (ASO)

