

# 2SC2632

## Silicon NPN epitaxial planer type

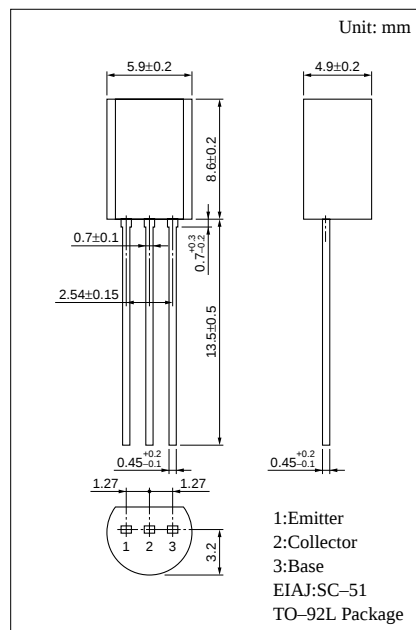
For low-frequency high breakdown voltage amplification  
Complementary to 2SA1124

### Features

- Satisfactory linearity of forward current transfer ratio  $h_{FE}$ .
- 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    | $V_{CBO}$ | 150        | V    |
| Collector to emitter voltage | $V_{CEO}$ | 150        | V    |
| Emitter to base voltage      | $V_{EBO}$ | 5          | V    |
| Peak collector current       | $I_{CP}$  | 100        | mA   |
| Collector current            | $I_C$     | 50         | mA   |
| Collector power dissipation  | $P_C$     | 1          | W    |
| Junction temperature         | $T_j$     | 150        | °C   |
| Storage temperature          | $T_{stg}$ | -55 ~ +150 | °C   |

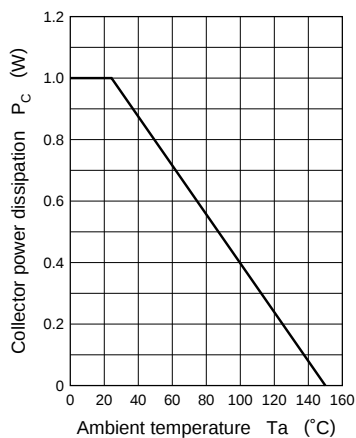
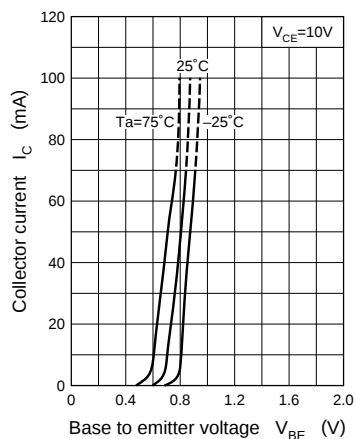
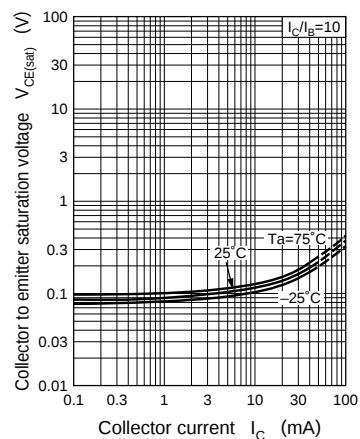
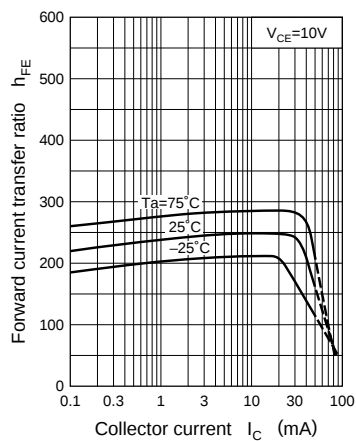
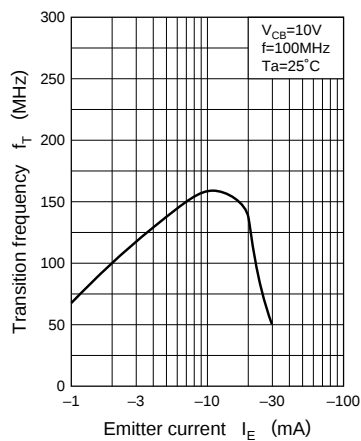


### Electrical Characteristics (Ta=25°C)

| Parameter                               | Symbol        | Conditions                                                                                 | min | typ | max | Unit    |
|-----------------------------------------|---------------|--------------------------------------------------------------------------------------------|-----|-----|-----|---------|
| Collector cutoff current                | $I_{CBO}$     | $V_{CB} = 100V, I_E = 0$                                                                   |     |     | 1   | $\mu A$ |
| Collector to emitter voltage            | $V_{CEO}$     | $I_C = 0.1mA, I_B = 0$                                                                     | 150 |     |     | V       |
| Emitter to base voltage                 | $V_{EBO}$     | $I_E = 10\mu A, I_C = 0$                                                                   | 5   |     |     | V       |
| Forward current transfer ratio          | $h_{FE}^*$    | $V_{CE} = 5V, I_C = 10mA$                                                                  | 130 |     | 330 |         |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 30mA, I_B = 3mA$                                                                    |     |     | 1   | V       |
| Transition frequency                    | $f_T$         | $V_{CB} = 10V, I_E = -10mA, f = 200MHz$                                                    |     | 160 |     | MHz     |
| Collector output capacitance            | $C_{ob}$      | $V_{CB} = 10V, I_E = 0, f = 1MHz$                                                          |     |     | 3   | pF      |
| Noise voltage                           | NV            | $V_{CE} = 10V, I_C = 1mA, G_V = 80dB$<br>$R_g = 100k\Omega, \text{Function} = \text{FLAT}$ |     | 150 | 300 | mV      |

\* $h_{FE}$  Rank classification

| Rank     | R         | S         |
|----------|-----------|-----------|
| $h_{FE}$ | 130 ~ 220 | 185 ~ 330 |

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