

## Features

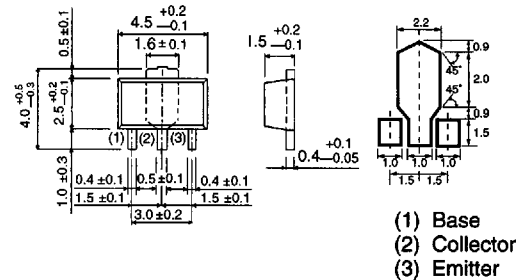
- available in MPT3 (MPT, SOT-89, SC-62) package
- package marking: 2SC4672; DK★, where ★ is  $h_{FE}$  code
- low collector saturation voltage, typically  $V_{CE(sat)} = 0.13 \text{ V}$  at  $I_C/I_B = 1 \text{ A}/50 \text{ mA}$
- excellent current characteristics of DC current amplification factor  $h_{FE}$

## Applications

- low frequency power amplifier

## Dimensions (Units : mm)

### 2SC4672 (MPT3)



## Absolute maximum ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                    | Symbol    | Limits          | Unit             | Conditions                                                        |
|------------------------------|-----------|-----------------|------------------|-------------------------------------------------------------------|
| Collector-to-base voltage    | $V_{CBO}$ | 60              | V                |                                                                   |
| Collector-to-emitter voltage | $V_{CEO}$ | 50              | V                |                                                                   |
| Emitter-to-base voltage      | $V_{EBO}$ | 6               | V                |                                                                   |
| Collector current            | $I_C$     | 2               | A                | DC                                                                |
|                              |           | 5               |                  | Single pulse, $P_W = 10 \text{ ms}$                               |
| Collector dissipation        | $P_C$     | 0.5             | W                |                                                                   |
|                              |           | 2.0             |                  | Mounted on $40 \times 40 \times 0.7 \text{ mm}$ ceramic substrate |
| Junction temperature         | $T_j$     | 150             | $^\circ\text{C}$ |                                                                   |
| Storage temperature          | $T_{stg}$ | $-55 \sim +150$ | $^\circ\text{C}$ |                                                                   |

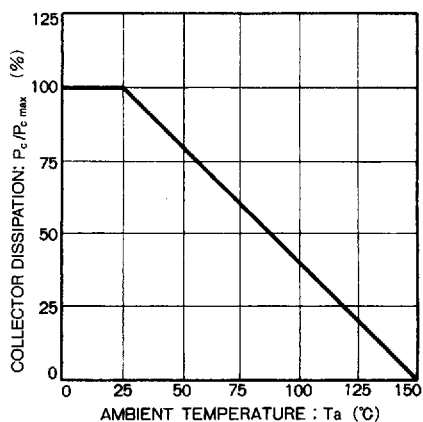
**Electrical characteristics (unless otherwise noted,  $T_a = 25^\circ\text{C}$ )**

| Parameter                               | Symbol        | Min | Typical | Max  | Unit          | Conditions                                                                             |
|-----------------------------------------|---------------|-----|---------|------|---------------|----------------------------------------------------------------------------------------|
| Collector-to-base breakdown voltage     | $BV_{CBO}$    | 60  |         |      | V             | $I_C = 50\ \mu\text{A}$                                                                |
| Collector-to-emitter breakdown voltage  | $BV_{CEO}$    | 50  |         |      | V             | $I_C = 1\ \text{mA}$                                                                   |
| Emitter-to-base breakdown voltage       | $BV_{EBO}$    | 6   |         |      | V             | $I_E = 50\ \mu\text{A}$                                                                |
| Collector cutoff current                | $I_{CBO}$     |     |         | 0.1  | $\mu\text{A}$ | $V_{CB} = 60\ \text{V}$                                                                |
| Emitter cutoff current                  | $I_{EBO}$     |     |         | 0.1  | $\mu\text{A}$ | $V_{EB} = 5\ \text{V}$                                                                 |
| DC current gain                         | $h_{FE}$      | 82  |         | 270  |               | $V_{CE} = 2\ \text{V}$ , $I_C = 0.5\ \text{A}$ , single pulse                          |
| Collector-to-emitter saturation voltage | $V_{CE(sat)}$ |     | 0.13    | 0.35 | V             | $I_C/I_B = 1\ \text{A}/50\ \text{mA}$ , single pulse                                   |
| Transition frequency                    | $f_T$         |     | 210     |      | MHz           | $V_{CB} = 2\ \text{V}$ , $I_E = -0.5\ \text{A}$ , $f = 100\ \text{MHz}$ , single pulse |
| Output capacitance                      | $C_{ob}$      |     | 25      |      | pF            | $V_{CB} = 10\ \text{V}$ , $I_E = 0\ \text{A}$ , $f = 1\ \text{MHz}$                    |

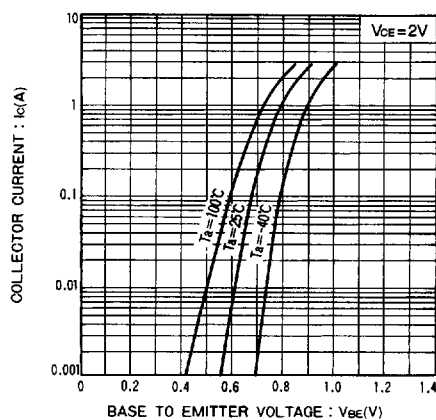
 **$h_{FE}$  rankings**

| Item     | P        | Q         |
|----------|----------|-----------|
| $h_{FE}$ | 82 ~ 180 | 120 ~ 270 |

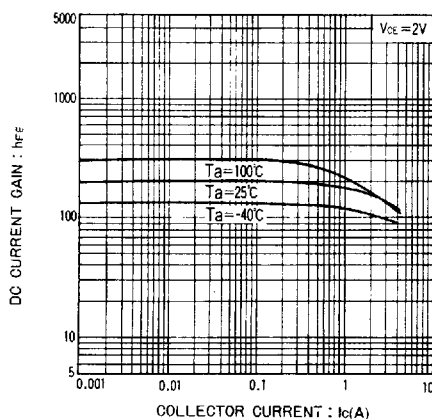
### Electrical characteristic curves



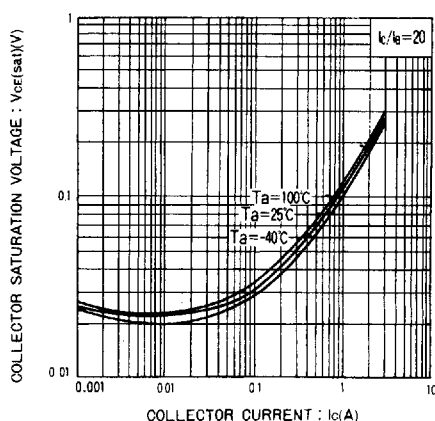
### Figure 1



### Figure 2



### Figure 3



### Figure 4

## Ordering information

|                                                    |      |
|----------------------------------------------------|------|
| Package                                            | Tape |
| Code                                               | T100 |
| Basic order quantity                               | 1000 |
| 2SC4672                                            | ★    |
| ★ = Standard, ☆ = Semi-standard, * = Special order |      |