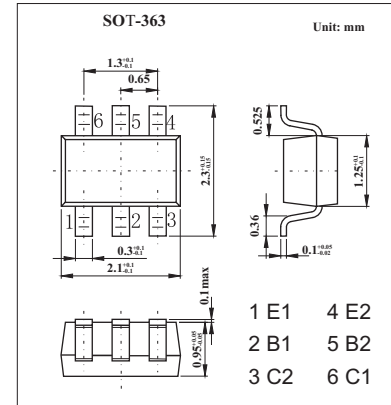
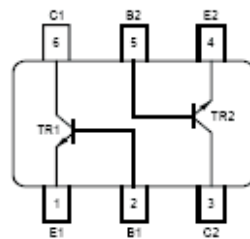


NPN Silicon AF Transistors Array

KC846S(BC846S)

■ Features

- For AF input stage and driver applications
- High current gain.
- Low collector-emitter saturation voltage.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage | V _{CB0} | 80 | V |
| Collector-emitter voltage | V _{CE0} | 65 | V |
| Emitter-base voltage | V _{EB0} | 6 | V |
| Collector current (DC) | I _c | 100 | mA |
| Peak collector current | I _{CM} | 200 | mA |
| power dissipation | P _D | 250 | mW |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -65 to +150 | °C |

KC846S(BC846S)

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|---------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector-base breakdown voltage | V _{CBO} | I _C = 10 μA, I _E = 0 | 80 | | | V |
| Collector-emitter breakdown voltage | V _{CEO} | I _C = 10 mA, I _B = 0 | 65 | | | V |
| Emitter-base breakdown voltage | V _{EBO} | I _E = 10 μA, I _C = 0 | 6 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} = 30 V, I _E = 0 | | | 15 | nA |
| | | V _{CB} = 30 V, I _E = 0, T _A = 150 °C | | | 5 | μA |
| DC current gain * | h _{FE} | I _C = 10 μA, V _{CE} = 5 V | | 250 | | |
| | | I _C = 2 mA, V _{CE} = 5 V | 200 | 290 | 450 | |
| Collector-emitter saturation voltage* | V _{CE(sat)} | I _C = 10 mA, I _B = 0.5 mA | | 90 | 250 | mV |
| | | I _C = 100 mA, I _B = 5 mA | | 200 | 650 | |
| Base-emitter saturation voltage* | V _{BE(sat)} | I _C = 10 mA, I _B = 0.5 mA | | 700 | | mV |
| | | I _C = 100 mA, I _B = 5 mA | | 900 | | |
| Base-emitter voltage* | V _{BE(ON)} | I _C = 2 mA, V _{CE} = 5 V | 580 | 660 | 700 | mV |
| | | I _C = 10 mA, V _{CE} = 5 V | | | 770 | |
| Collector-base capacitance | C _{cb} | V _{CB} = 10 V, f = 1 MHz | | 2 | | pF |
| Emitter-base capacitance | C _{eb} | V _{EB} = 0.5 V, f = 1 MHz | | 10 | | pF |
| Noise figure | F | I _C = 200 μA, V _{CE} = 5 V, R _s = 2 kΩ, f = 1 kHz, Δf = 200 Hz | | | 10 | dB |
| Transition frequency | f _T | I _C = 20 mA, V _{CE} = 5 V, f = 100 MHz | | 250 | | MHz |

* Pulse test: t < 300 μs; D < 2%

■ Marking

| | |
|---------|----|
| Marking | 1D |
|---------|----|