

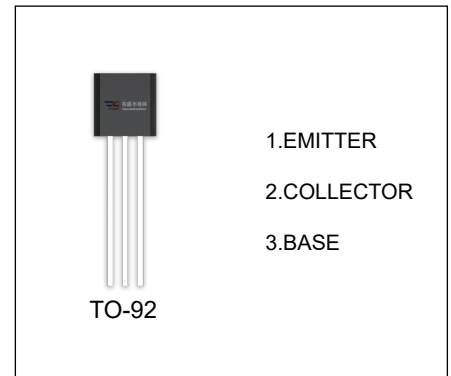
KSB564A TRANSISTOR (PNP)

FEATURES

- Complement to KSD471A
- Low $V_{CE(sat)}$

APPLICATION

- Audio Frequency Power Amplifier



ORDERING INFORMATION

| Part Number | Package | Packing Method | Pack Quantity |
|-------------|---------|----------------|---------------|
| KSB564A | TO-92 | Bulk | 1000pcs/Bag |
| KSB564A-TA | TO-92 | Tape | 2000pcs/Box |

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|--|----------|-----------------------------|
| V_{CBO} | Collector-Base Voltage | -30 | V |
| V_{CEO} | Collector-Emitter Voltage | -25 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current | -1 | A |
| P_C | Collector Power Dissipation | 800 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 156 | $^{\circ}\text{C}/\text{W}$ |
| T_J, T_{stg} | Operation Junction and Storage Temperature Range | -55~+150 | $^{\circ}\text{C}$ |

$T_a=25\text{ }^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-0.1\text{mA}, I_E=0$ | -30 | | | V |
| Collector-emitter breakdown | $V_{(BR)CEO}$ | $I_C=-10\text{mA}, I_B=0$ | -25 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-0.1\text{mA}, I_C=0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-30\text{V}, I_E=0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-5\text{V}, I_C=0$ | | | -0.1 | μA |
| DC current gain | h_{FE} | $V_{CE}=-1\text{V}, I_C=-0.1\text{A}$ | 70 | | 400 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-1\text{A}, I_B=-0.1\text{A}$ | | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=-1\text{A}, I_B=-0.1\text{A}$ | | | -1.2 | V |
| Collector output capacitance | C_{ob} | $V_{CB}=-6\text{V}, I_E=0, f=1\text{MHz}$ | | 18 | | pF |
| Transition frequency | f_T | $V_{CE}=-6\text{V}, I_C=-10\text{mA}$ | | 110 | | MHz |

CLASSIFICATION OF h_{FE}

| RANK | O | Y | G |
|-------|--------|---------|---------|
| RANGE | 70-140 | 120-240 | 200-400 |