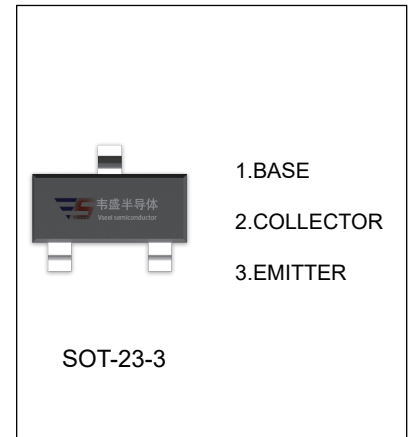


KTC3876 TRANSISTOR (NPN)

FEATURES

- High h_{FE}
- Complementary to KTA1505



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

| Symbol | Parameter | Value | Unit |
|----------------|--|---------|--------------------|
| V_{CBO} | Collector-Base Voltage | 35 | V |
| V_{CEO} | Collector-Emitter Voltage | 30 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current -Continuous | 500 | mA |
| P_C | Collector Power Dissipation | 200 | mW |
| T_J, T_{stg} | Operation Junction and Storage Temperature Range | -55-150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|--------|----------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=100\ \mu\text{A}, I_E=0$ | 35 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=1\text{mA}, I_B=0$ | 30 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=100\ \mu\text{A}, I_C=0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=35\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5\text{V}, I_C=0$ | | | 0.1 | μA |
| DC current gain | h_{FE1} | $V_{CE}=1\text{V}, I_C=100\text{mA}$ | 70 | | 400 | |
| | h_{FE2} | $V_{CE}=6\text{V}, I_C=400\text{mA}$ | | O Y | 25 40 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=100\text{mA}, I_B=10\text{mA}$ | | | 0.25 | V |
| base-emitter voltage | V_{BE} | $V_{CE}=1\text{V}, I_B=100\text{mA}$ | | | 1 | V |
| Transition frequency | f_T | $V_{CE}=6\text{V}, I_C=20\text{mA}$ | | 300 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$ | | 7 | | pF |

CLASSIFICATION OF h_{FE}

| Rank | O | Y | GR(G) |
|---------|--------|---------|---------|
| Range | 70-140 | 120-240 | 200-400 |
| Marking | WO | WY | WG |