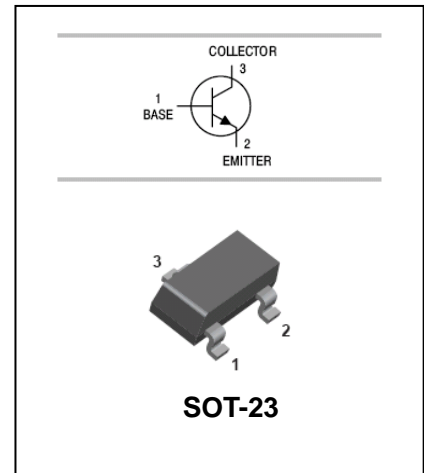


NPN Silicon Epitaxial Planar Transistor

KTC3876

FEATURES

- Complementary To KTA1505.
- Excellent H_{FE} Linearity.
- Low noise.



APPLICATIONS

- General purpose application, switching application.

ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|-------------|--------------|
| KTC3876 | WO•/WY•/WG• | SOT-23 |

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

| Symbol | Parameter | Value | Units |
|----------------|----------------------------------|---------|--------------------|
| 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} | Junction and Storage Temperature | -55~150 | $^{\circ}\text{C}$ |

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

NPN Silicon Epitaxial Planar Transistor**KTC3876**

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

CLASSIFICATION OF h_{FE}

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

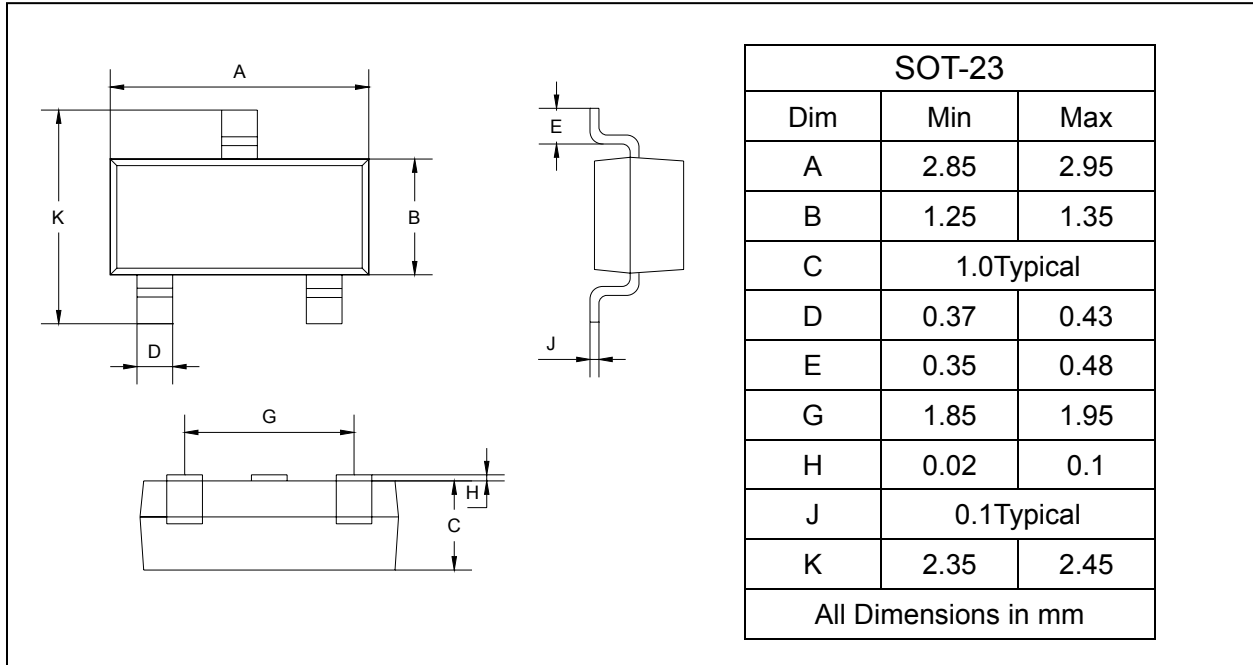
NPN Silicon Epitaxial Planar Transistor

KTC3876

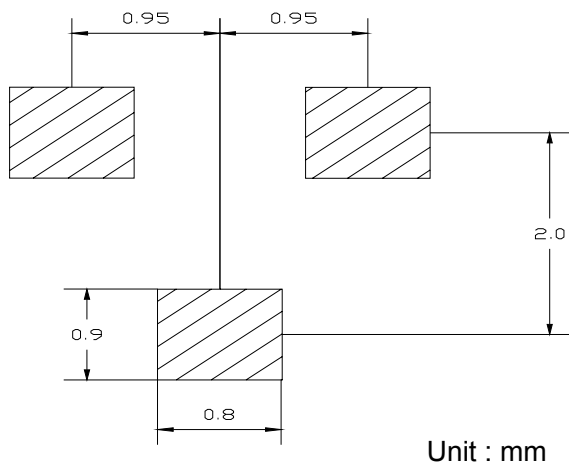
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|---------|---------|----------------|
| KTC3876 | SOT-23 | 3000/Tape&Reel |