

## NPN Silicon Epitaxial Planar Transistor

**KTC4076**

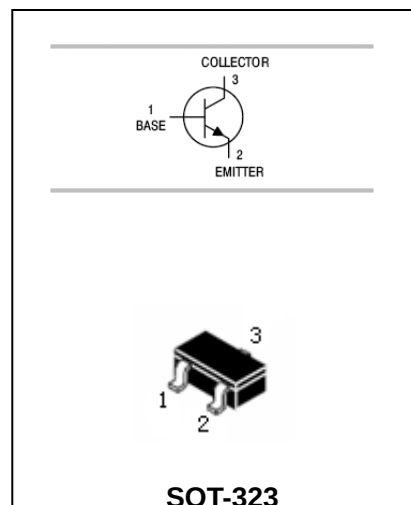
### FEATURES

- Excellent  $H_{FE}$  Linearity.
- Complementary to KTA2015
- Power dissipation. ( $P_C=100mW$ )
- RoHS compliant with Halogen-free

**HF**

### APPLICATIONS

- General purpose and switching application.



### ORDERING INFORMATION

| Type No.  | Marking | Package Code |
|-----------|---------|--------------|
| KTC4076-O | WO      | SOT-323      |
| KTC4076-Y | WY      | SOT-323      |

### MAXIMUM RATING @ $T_a=25^{\circ}C$ 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 Dissipation            | 100         | mW          |
| $T_j, T_{stg}$ | Junction and Storage Temperature | -55 to +150 | $^{\circ}C$ |

# NPN Silicon Epitaxial Planar Transistor

## KTC4076

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| 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  | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$               |     |     | 0.1  | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE}=1V, I_C=100mA$           | 70  |     | 240  |         |
|                                      |               | $V_{CE}=6V, I_C=400mA$           | 25  |     |      |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=100mA, I_B=10mA$            |     | 0.1 | 0.25 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=6V, I_C=20mA$            |     |     |      | MHz     |
| Collector output capacitance         | $C_{ob}$      | $V_{CB}=6V, I_E=0mA$<br>$f=1MHz$ |     | 7.0 |      | pF      |

### CLASSIFICATION OF $h_{FE(1)}$

| Rank    | O      | Y       |
|---------|--------|---------|
| Range   | 70-140 | 120-240 |
| Marking | WO     | WY      |

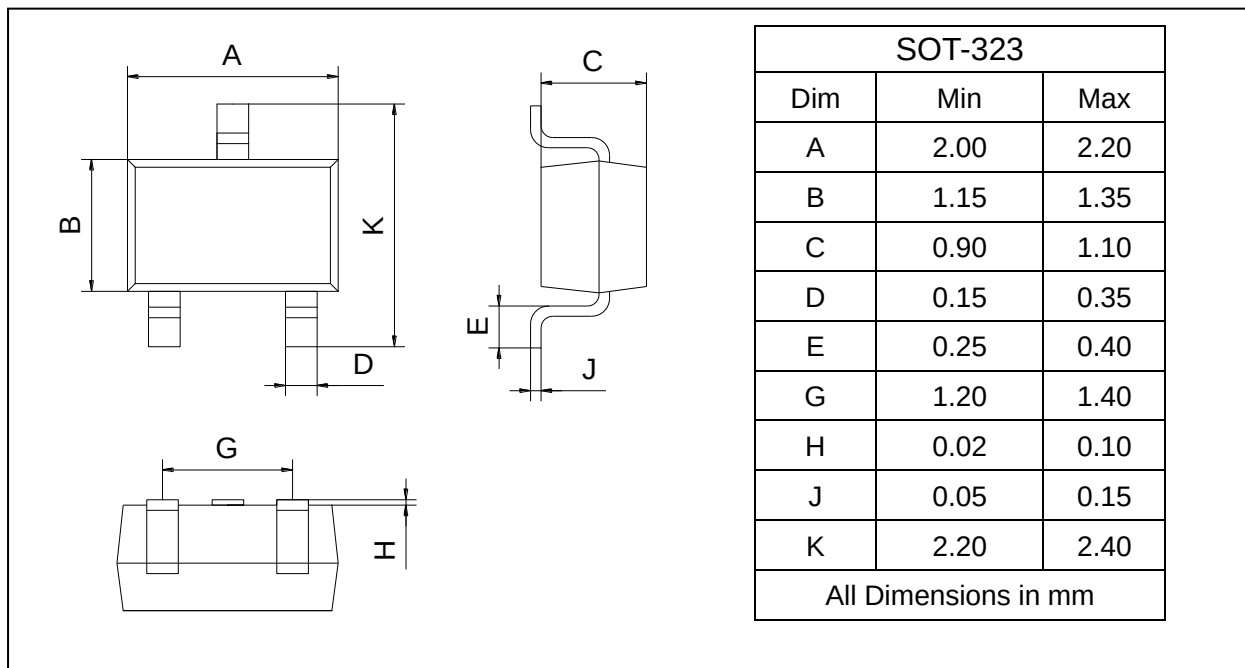
## NPN Silicon Epitaxial Planar Transistor

**KTC4076**

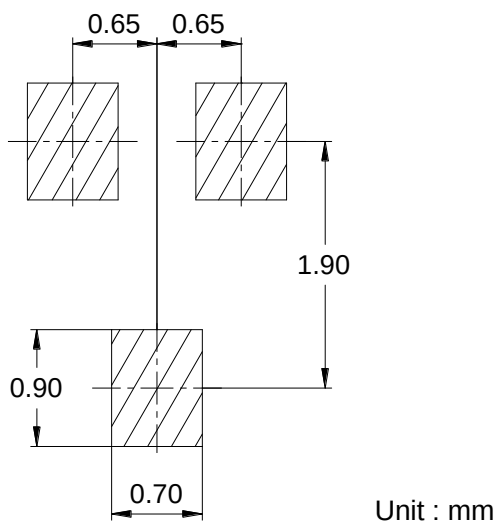
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device  | Package | Shipping       |
|---------|---------|----------------|
| KTC4076 | SOT-323 | 3000/Tape&Reel |