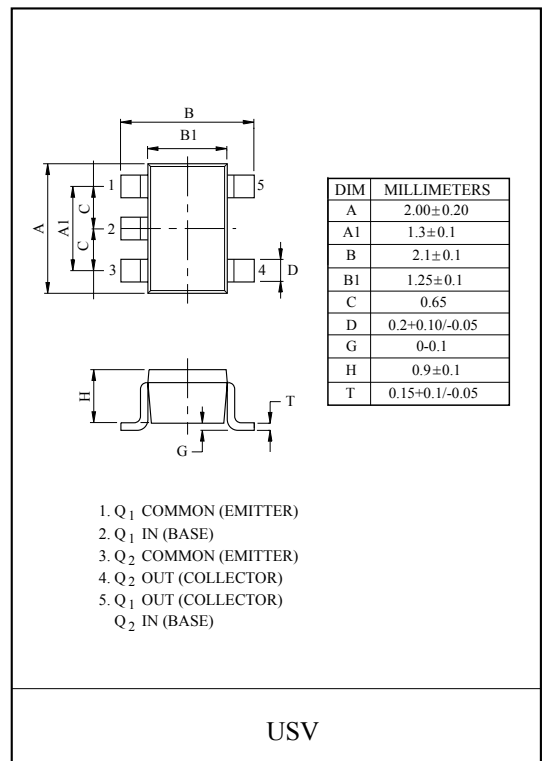
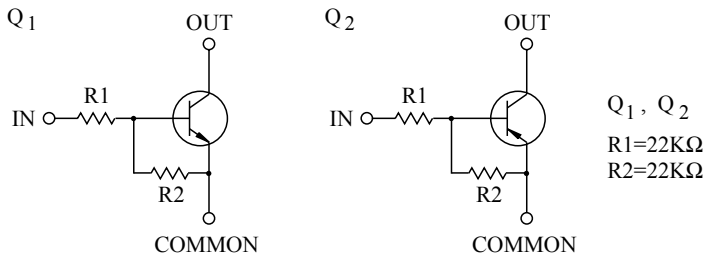


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

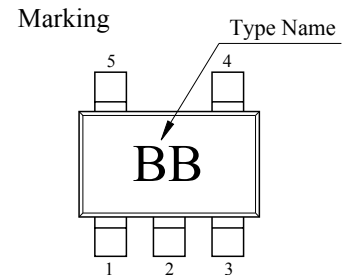
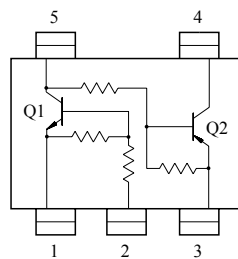
#### FEATURES

- Including two devices in USV.  
(Ultra Super mini type with 5 leads.)
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.

#### EQUIVALENT CIRCUIT



#### EQUIVALENT CIRCUIT (TOP VIEW)



#### Q1 MAXIMUM RATING (Ta=25℃)

| CHARACTERISTIC | SYMBOL         | RATING  | UNIT |
|----------------|----------------|---------|------|
| Output Voltage | V <sub>O</sub> | 50      | V    |
| Input Voltage  | V <sub>I</sub> | 40, -10 | V    |
| Output Current | I <sub>O</sub> | 100     | mA   |

#### Q2 MAXIMUM RATING (Ta=25℃)

| CHARACTERISTIC | SYMBOL         | RATING  | UNIT |
|----------------|----------------|---------|------|
| Output Voltage | V <sub>O</sub> | -50     | V    |
| Input Voltage  | V <sub>I</sub> | -40, 10 | V    |
| Output Current | I <sub>O</sub> | -100    | mA   |

#### Q1, Q2 MAXIMUM RATING (Ta=25℃)

| CHARACTERISTIC            | SYMBOL           | RATING    | UNIT |
|---------------------------|------------------|-----------|------|
| Power Dissipation         | P <sub>D</sub> * | 200       | mW   |
| Junction Temperature      | T <sub>j</sub>   | 150       | ℃    |
| Storage Temperature Range | T <sub>stg</sub> | -55 ~ 150 | ℃    |

\* Total Raing.

# KRX103U

## Q1 ELECTRICAL CHARACTERISTICS (Ta=25℃)

| CHARACTERISTIC         | SYMBOL       | TEST CONDITION        | MIN. | TYP. | MAX. | UNIT. |
|------------------------|--------------|-----------------------|------|------|------|-------|
| Output Cut-off Current | $I_{O(OFF)}$ | $V_O=50V, V_I=0$      | -    | -    | 500  | nA    |
| DC Current Gain        | $G_I$        | $V_O=5V, I_O=10mA$    | 70   | 120  | -    |       |
| Output Voltage         | $V_{O(ON)}$  | $I_O=10mA, I_I=0.5mA$ | -    | 0.1  | 0.3  | V     |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$   | -    | 2.1  | 3.0  | V     |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$   | 1.0  | 1.2  | -    | V     |
| Transition Frequency   | $f_T^*$      | $V_O=10V, I_O=5mA$    | -    | 200  | -    | MHz   |
| Input Current          | $I_I$        | $V_I=5V$              | -    | -    | 0.36 | mA    |

Note : \* Characteristic of Transistor Only.

## Q2 ELECTRICAL CHARACTERISTICS (Ta=25℃)

| CHARACTERISTIC         | SYMBOL       | TEST CONDITION          | MIN. | TYP. | MAX.  | UNIT. |
|------------------------|--------------|-------------------------|------|------|-------|-------|
| Output Cut-off Current | $I_{O(OFF)}$ | $V_O=-50V, V_I=0$       | -    | -    | -500  | nA    |
| DC Current Gain        | $G_I$        | $V_O=-5V, I_O=-10mA$    | 70   | 120  | -     |       |
| Output Voltage         | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$ | -    | -0.1 | -0.3  | V     |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=-0.2V, I_O=-5mA$   | -    | -2.1 | -3.0  | V     |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$   | -1.0 | -1.2 | -     | V     |
| Transition Frequency   | $f_T^*$      | $V_O=-10V, I_O=-5mA$    | -    | 200  | -     | MHz   |
| Input Current          | $I_I$        | $V_I=-5V$               | -    | -    | -0.36 | mA    |

Note : \* Characteristic of Transistor Only.

