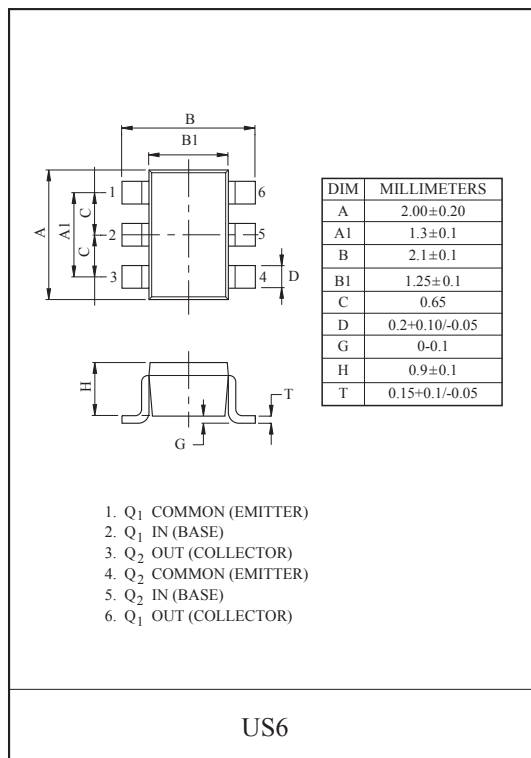
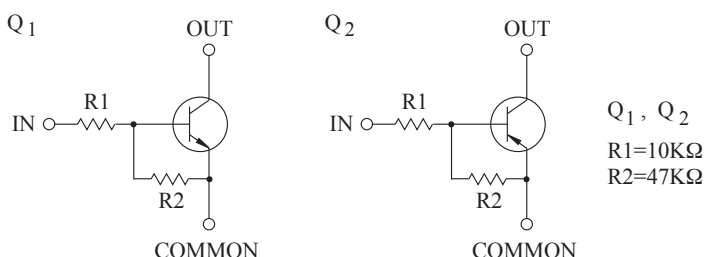


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

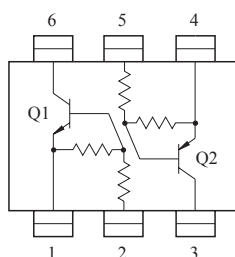
### FEATURES

- Including two devices in US6.
- (Ultra Super mini type with 6 leads.)
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.
- Suffix U : Qualified to AEC-Q101.  
ex) KRX206U-RTK/HU

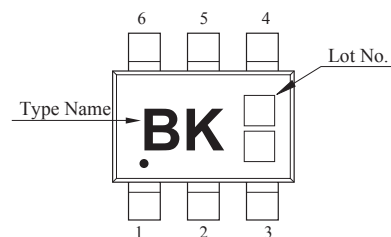
### EQUIVALENT CIRCUIT



### EQUIVALENT CIRCUIT (TOP VIEW)



### Marking



### Q1 MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | SYMBOL         | RATING | UNIT |
|----------------|----------------|--------|------|
| Output Voltage | V <sub>O</sub> | 50     | V    |
| Input Voltage  | V <sub>I</sub> | 30, -6 | V    |
| Output Current | I <sub>O</sub> | 100    | mA   |

### Q2 MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | SYMBOL         | RATING | UNIT |
|----------------|----------------|--------|------|
| Output Voltage | V <sub>O</sub> | -50    | V    |
| Input Voltage  | V <sub>I</sub> | -30, 6 | V    |
| Output Current | I <sub>O</sub> | -100   | mA   |

### Q1, Q2 MAXIMUM RATING (Ta=25°C)

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

\* Total Rating.

# KRX206U

## Q1 ELECTRICAL CHARACTERISTICS (Ta=25°C)

| 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        | $G_I$        | $V_O=5V, I_O=10mA$    | 80   | 150  | -    |            |
| Output Voltage         | $V_{O(ON)}$  | $I_O=10mA, I_I=0.5mA$ | -    | 0.1  | 0.3  | V          |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$   | -    | 1.2  | 1.8  | V          |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$   | 0.5  | 0.75 | -    | V          |
| Transition Frequency   | $f_T$ *      | $V_O=10V, I_O=5mA$    | -    | 200  | -    | MHz        |
| Input Current          | $I_I$        | $V_I=5V$              | -    | -    | 0.88 | mA         |
| Input Resistor         | $R_I$        | -                     | 7    | 10   | 13   | k $\Omega$ |
| Resistor Ratio         | $R_I/R_2$    | -                     | 3.7  | 4.7  | 5.7  | -          |

Note : \* Characteristic of Transistor Only.

## Q2 ELECTRICAL CHARACTERISTICS (Ta=25°C)

| 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        | $G_I$        | $V_O=-5V, I_O=-10mA$    | 80   | 150   | -     |            |
| Output Voltage         | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$ | -    | -0.1  | -0.3  | V          |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=-0.2V, I_O=-5mA$   | -    | -1.2  | -1.8  | V          |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$   | -0.5 | -0.75 | -     | V          |
| Transition Frequency   | $f_T$ *      | $V_O=-10V, I_O=-5mA$    | -    | 200   | -     | MHz        |
| Input Current          | $I_I$        | $V_I=-5V$               | -    | -     | -0.88 | mA         |
| Input Resistor         | $R_I$        | -                       | 7    | 10    | 13    | k $\Omega$ |
| Resistor Ratio         | $R_I/R_2$    | -                       | 3.7  | 4.7   | 5.7   | -          |

Note : \* Characteristic of Transistor Only.

