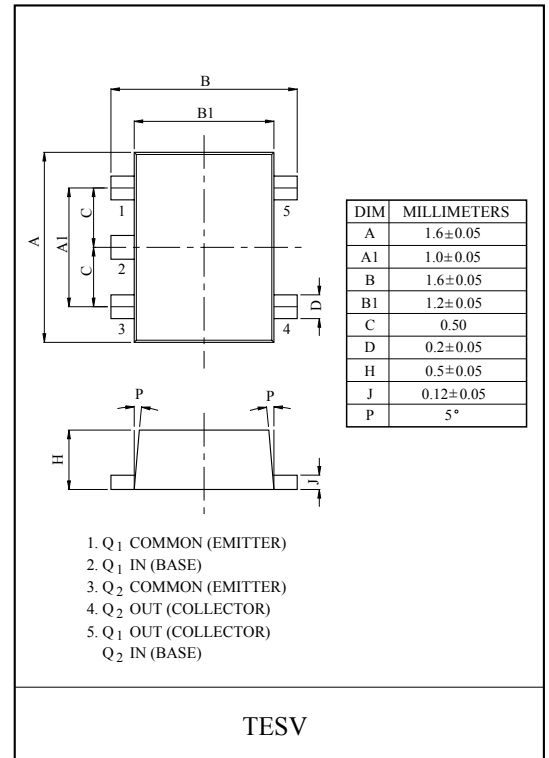
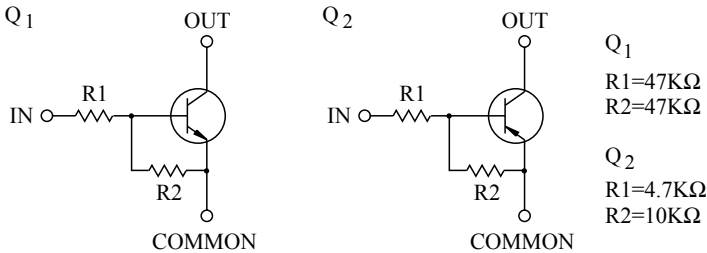


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

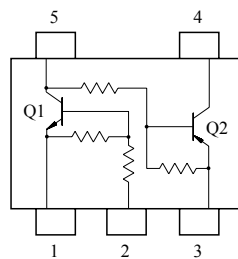
#### FEATURES

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

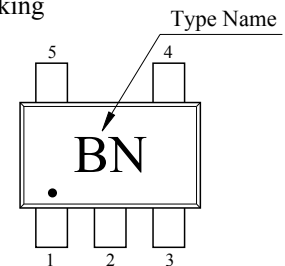
#### EQUIVALENT CIRCUIT



#### 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> | 40, -10 | 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> | -20, 7 | 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 Raing.

# KRX104E

## 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   | 200  | -    |       |
| Output Voltage         | $V_{O(ON)}$  | $I_O=10mA, I_I=0.5mA$ | -    | 0.1  | 0.3  | V     |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$   | -    | 2.8  | 5.0  | 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          | $I_I$        | $V_I=5V$              | -    | -    | 0.18 | mA    |

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        | $G_I$        | $V_O=-5V, I_O=-10mA$    | 30   | -     | -    |       |
| Output Voltage         | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$ | -    | -0.1  | -0.3 | V     |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O=-0.3V, I_O=-20mA$  | -    | -1.76 | -2.5 | V     |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$   | -0.3 | -0.82 | -    | V     |
| Transition Frequency   | $f_T^*$      | $V_O=-10V, I_O=-5mA$    | -    | 250   | -    | MHz   |
| Input Current          | $I_I$        | $V_I=-5V$               | -    | -     | -1.8 | mA    |

Note : \* Characteristic of Transistor Only.

# KRX104E

