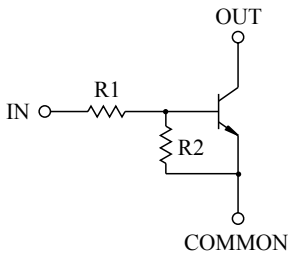


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

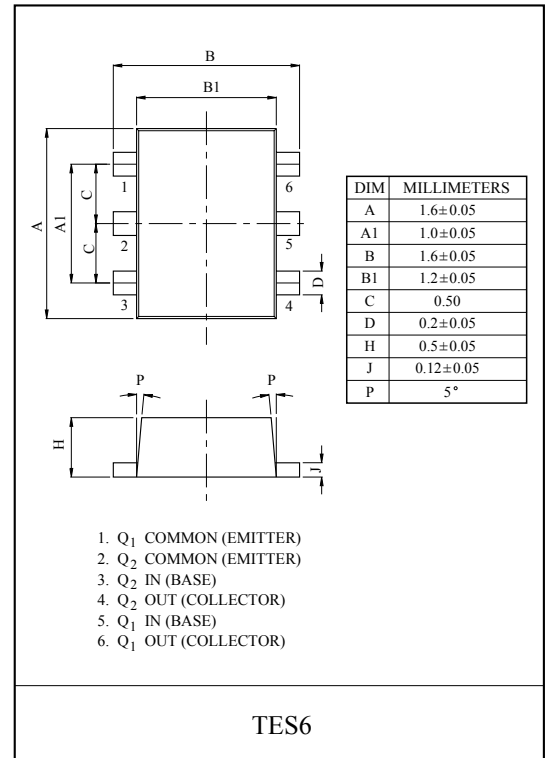
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

### EQUIVALENT CIRCUIT

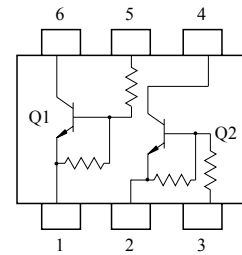


### BIAS RESISTOR VALUES

| TYPE NO. | R1(kΩ) | R2(kΩ) |
|----------|--------|--------|
| KRC821E  | 4.7    | 4.7    |
| KRC822E  | 10     | 10     |
| KRC823E  | 22     | 22     |
| KRC824E  | 47     | 47     |
| KRC825E  | 2.2    | 47     |
| KRC826E  | 4.7    | 47     |



### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta=25°C)

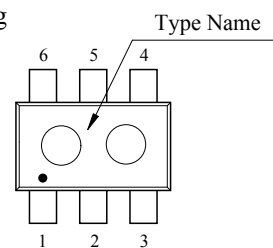
| CHARACTERISTIC            |                | SYMBOL    | RATING    | UNIT |
|---------------------------|----------------|-----------|-----------|------|
| Output Voltage            | KRC821E ~ 826E | $V_O$     | 50        | V    |
| Input Voltage             | KRC821E        | $V_I$     | 20, -10   | V    |
|                           | KRC822E        |           | 30, -10   |      |
|                           | KRC823E        |           | 40, -10   |      |
|                           | KRC824E        |           | 40, -10   |      |
|                           | KRC825E        |           | 12, -5    |      |
|                           | KRC826E        |           | 20, -5    |      |
| Output Current            | KRC821E ~ 826E | $I_O$     | 100       | mA   |
| Power Dissipation         |                | $P_D^*$   | 200       | mW   |
| Junction Temperature      |                | $T_j$     | 150       | °C   |
| Storage Temperature Range |                | $T_{stg}$ | -55 ~ 150 | °C   |

\* Total Rating.

### MARK SPEC

| TYPE | KRC821E | KRC822E | KRC823E | KRC824E | KRC825E | KRC826E |
|------|---------|---------|---------|---------|---------|---------|
| MARK | YA      | YB      | YC      | YD      | YE      | YF      |

### Marking



# KRC821E~KRC826E

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC         |                | SYMBOL       | TEST CONDITION        | MIN. | TYP. | MAX. | UNIT |
|------------------------|----------------|--------------|-----------------------|------|------|------|------|
| Output Cut-off Current | KRC821E ~ 826E | $I_{O(OFF)}$ | $V_O=50V, V_I=0$      | -    | -    | 500  | nA   |
| DC Current Gain        | KRC821E        | $G_I$        | $V_O=5V, I_O=10mA$    | 30   | 55   | -    |      |
|                        | KRC822E        |              |                       | 50   | 80   | -    |      |
|                        | KRC823E        |              |                       | 70   | 120  | -    |      |
|                        | KRC824E        |              |                       | 80   | 200  | -    |      |
|                        | KRC825E        |              |                       | 80   | 200  | -    |      |
|                        | KRC826E        |              |                       | 80   | 200  | -    |      |
| Output Voltage         | KRC821E ~ 826E | $V_{O(ON)}$  | $I_O=10mA, I_I=0.5mA$ | -    | 0.1  | 0.3  | V    |
| Input Voltage (ON)     | KRC821E        | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$   | -    | 1.5  | 2.0  | V    |
|                        | KRC822E        |              |                       | -    | 1.8  | 2.4  |      |
|                        | KRC823E        |              |                       | -    | 2.1  | 3.0  |      |
|                        | KRC824E        |              |                       | -    | 2.8  | 5.0  |      |
|                        | KRC825E        |              |                       | -    | 0.8  | 1.1  |      |
|                        | KRC826E        |              |                       | -    | 0.9  | 1.3  |      |
| Input Voltage (OFF)    | KRC821E ~ 824E | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$   | 1.0  | 1.2  | -    | V    |
|                        | KRC825E ~ 826E |              |                       | 0.5  | 0.65 | -    |      |
| Transition Frequency   | KRC821E ~ 826E | $f_T^*$      | $V_O=10V, I_O=5mA$    | -    | 200  | -    | MHz  |
| Input Current          | KRC821E        | $I_I$        | $V_I=5V$              | -    | -    | 1.8  | mA   |
|                        | KRC822E        |              |                       | -    | -    | 0.88 |      |
|                        | KRC823E        |              |                       | -    | -    | 0.36 |      |
|                        | KRC824E        |              |                       | -    | -    | 0.18 |      |
|                        | KRC825E        |              |                       | -    | -    | 3.6  |      |
|                        | KRC826E        |              |                       | -    | -    | 1.8  |      |

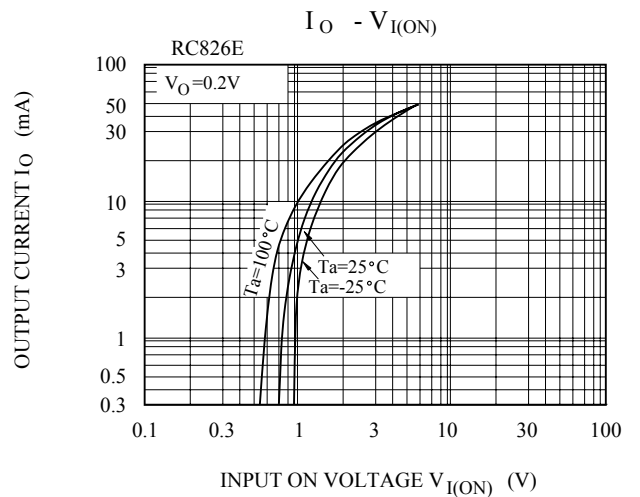
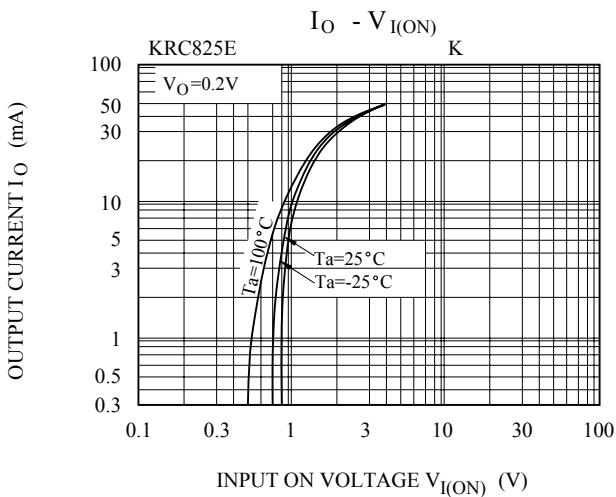
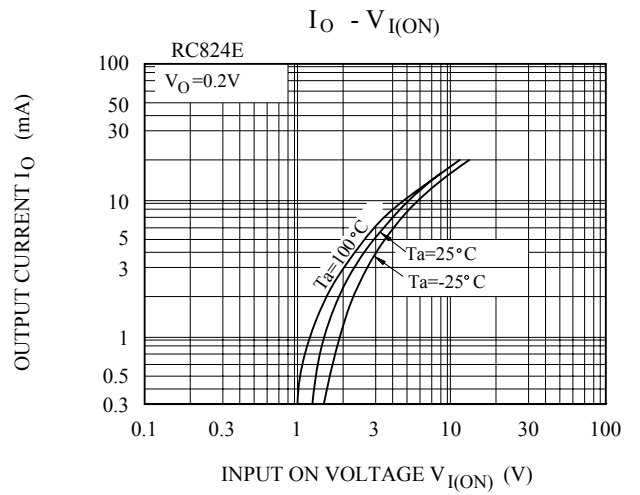
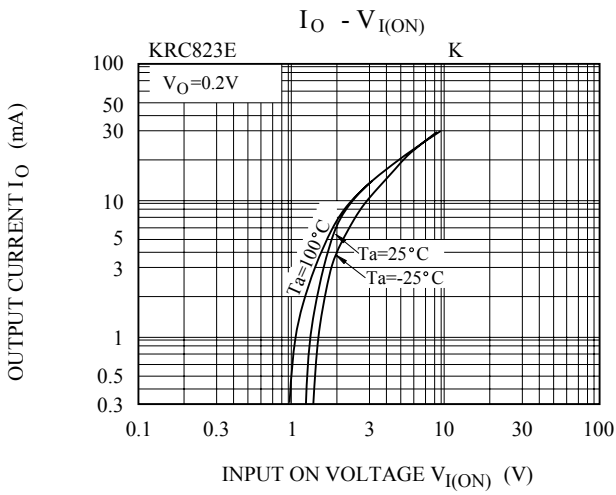
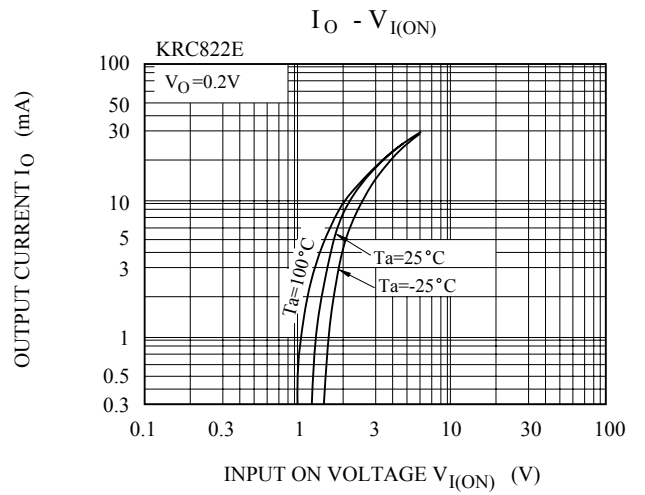
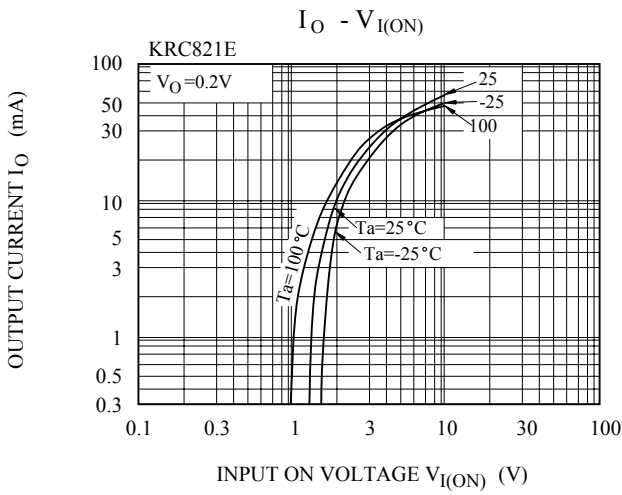
Note : \* Characteristic of Transistor Only.

# KRC821E~KRC826E

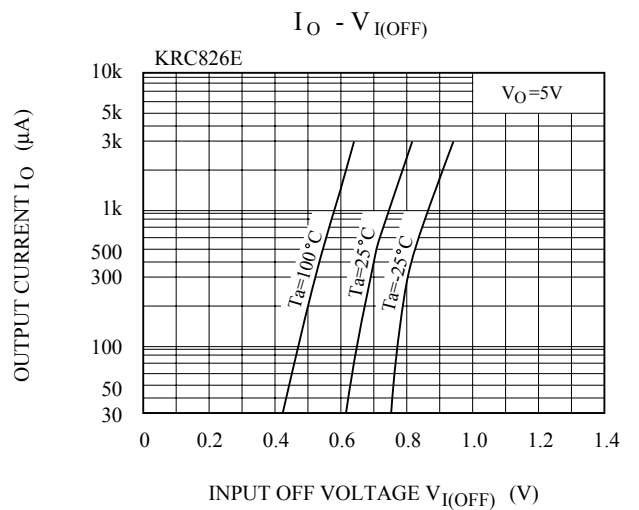
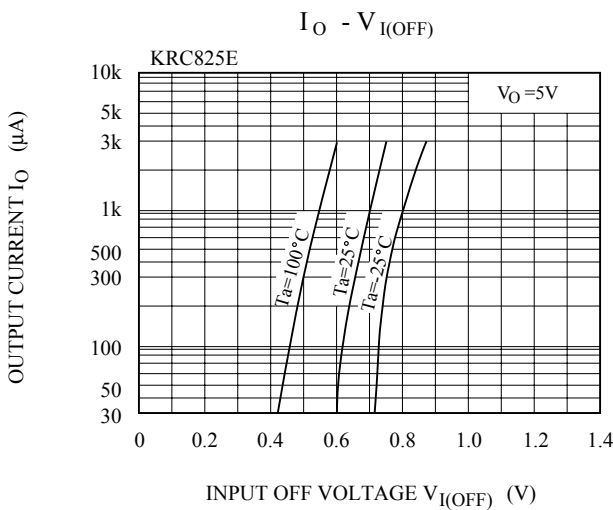
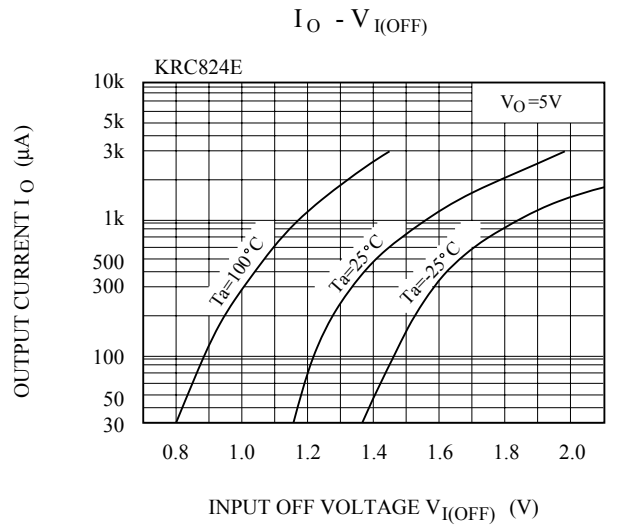
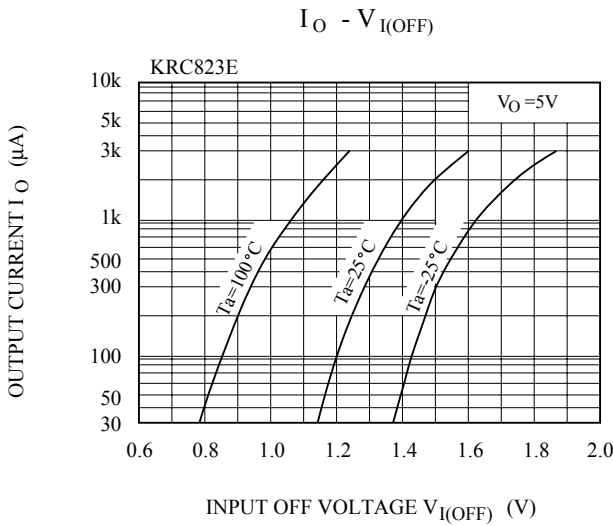
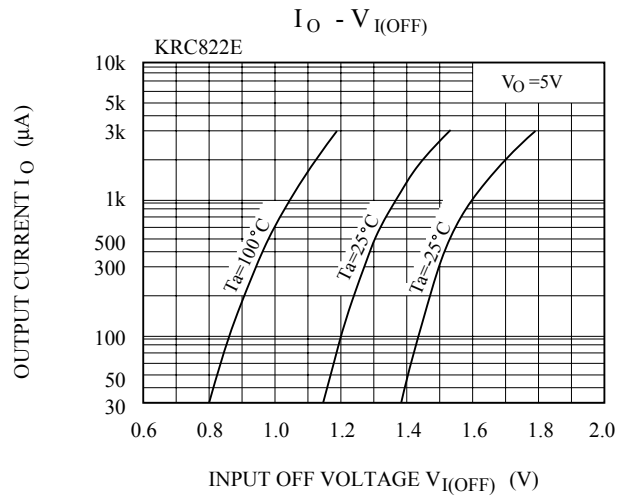
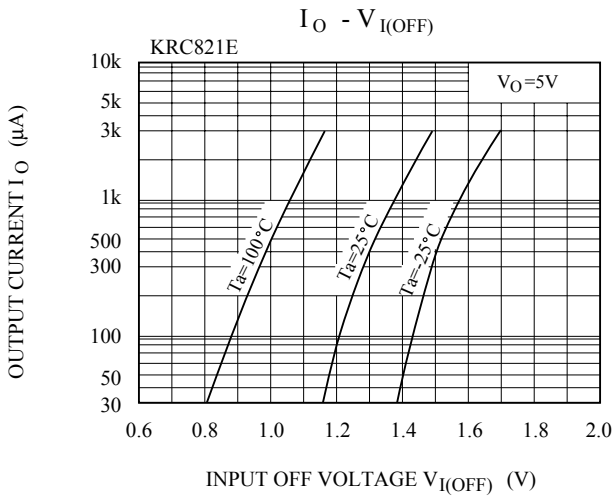
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC |              | SYMBOL  | TEST CONDITION   | MIN. | TYP. | MAX. | UNIT |
|----------------|--------------|---------|--|------|------|------|------|
| Switching Time | Rise Time    | KRC821E | V <sub>O</sub> =5V<br>V <sub>IN</sub> =5V<br>R <sub>L</sub> =1kΩ | -    | 0.03 | -    | μS   |
|                |              | KRC822E |  | -    | 0.05 | -    |      |
|                |              | KRC823E |  | -    | 0.12 | -    |      |
|                |              | KRC824E |  | -    | 0.22 | -    |      |
|                |              | KRC825E |  | -    | 0.01 | -    |      |
|                |              | KRC826E |  | -    | 0.03 | -    |      |
|                | Storage Time | KRC821E |  | -    | 2.0  | -    |      |
|                |              | KRC822E |  | -    | 2.0  | -    |      |
|                |              | KRC823E |  | -    | 2.0  | -    |      |
|                |              | KRC824E |  | -    | 2.0  | -    |      |
|                |              | KRC825E |  | -    | 2.0  | -    |      |
|                |              | KRC826E |  | -    | 2.0  | -    |      |
|                | Fall Time    | KRC821E |  | -    | 0.12 | -    |      |
|                |              | KRC822E |  | -    | 0.36 | -    |      |
|                |              | KRC823E |  | -    | 0.35 | -    |      |
|                |              | KRC824E |  | -    | 0.6  | -    |      |
|                |              | KRC825E |  | -    | 0.1  | -    |      |
|                |              | KRC826E |  | -    | 0.19 | -    |      |

# KRC821E~KRC826E



# KRC821E~KRC826E



# KRC821E~KRC826E

