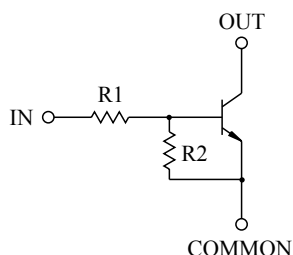


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

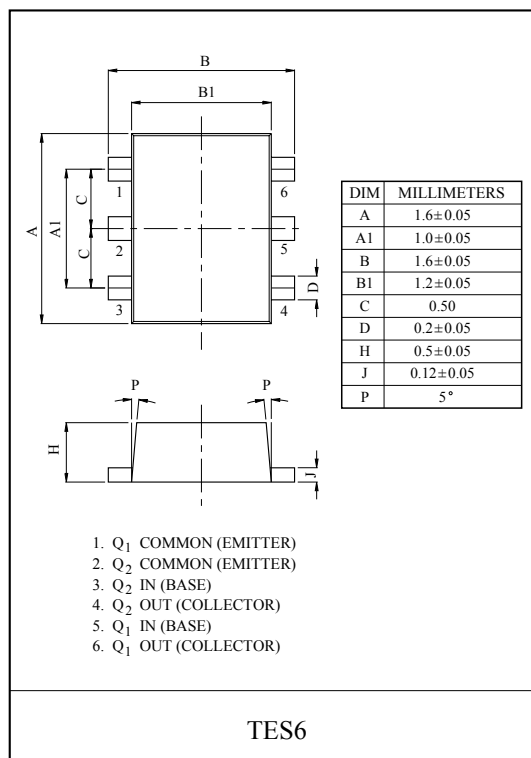
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

### EQUIVALENT CIRCUIT

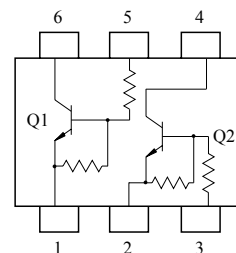


### BIAS RESISTOR VALUES

| TYPE NO. | R1(k $\Omega$ ) | R2(k $\Omega$ ) |
|----------|-----------------|-----------------|
| KRC827E  | 10              | 47              |
| KRC828E  | 22              | 47              |
| KRC829E  | 47              | 22              |



### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta=25℃)

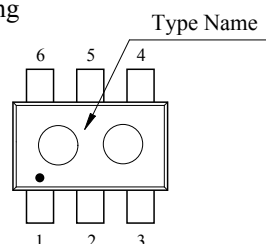
| CHARACTERISTIC            |                | SYMBOL    | RATING    | UNIT |
|---------------------------|----------------|-----------|-----------|------|
| Output Voltage            | KRC827E ~ 829E | $V_O$     | 50        | V    |
| Input Voltage             | KRC827E        | $V_I$     | 30, -6    | V    |
|                           | KRC828E        |           | 40, -7    |      |
|                           | KRC829E        |           | 40, -15   |      |
| Output Current            | KRC827E ~ 829E | $I_O$     | 100       | mA   |
| Power Dissipation         |                | $P_D$ *   | 200       | mW   |
| Junction Temperature      |                | $T_j$     | 150       | ℃    |
| Storage Temperature Range |                | $T_{stg}$ | -55 ~ 150 | ℃    |

\* Total Rating.

### MARK SPEC

| TYPE | KRC827E | KRC828E | KRC829E |
|------|---------|---------|---------|
| MARK | YH      | YI      | YJ      |

### Marking



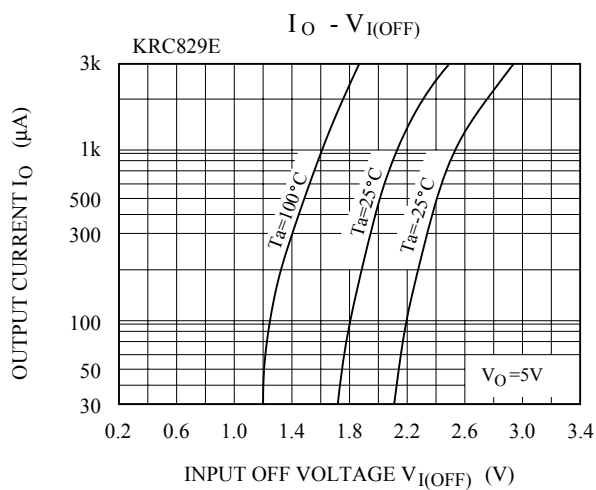
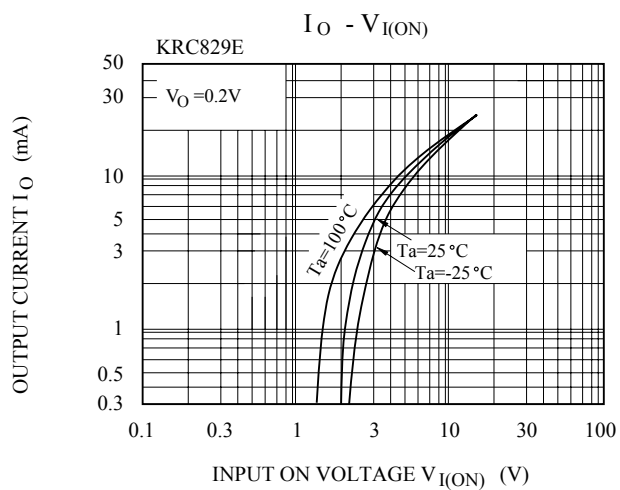
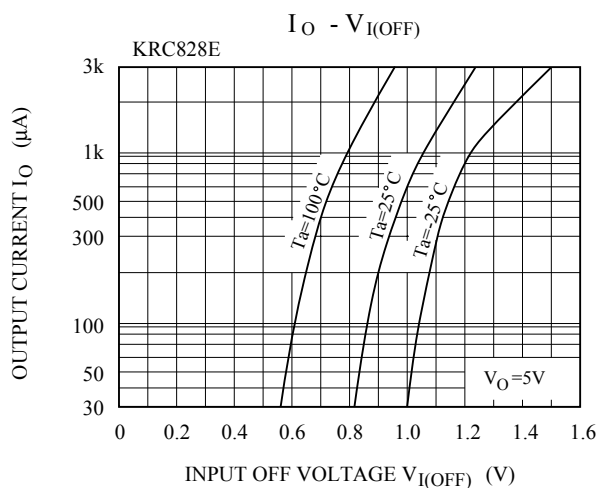
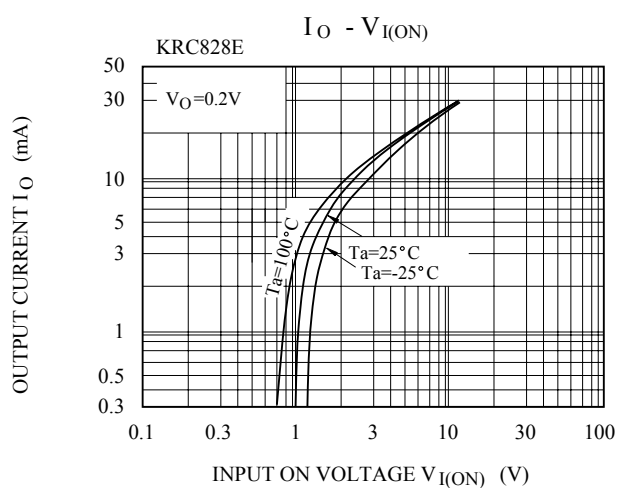
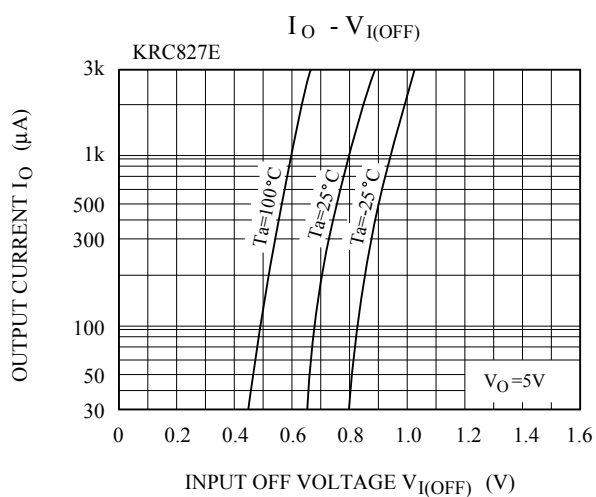
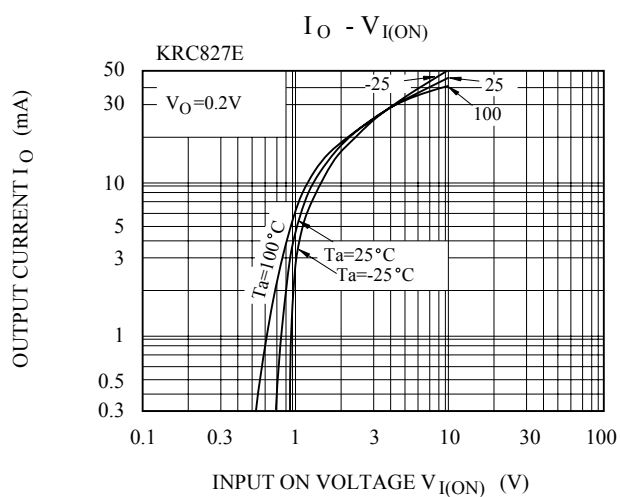
# KRC827E~KRC829E

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC         |              |         | SYMBOL           | TEST CONDITION                                                 | MIN.                                        | TYP. | MAX. | UNIT |     |
|------------------------|--------------|---------|------------------|----------------------------------------------------------------|---------------------------------------------|------|------|------|-----|
| Output Cut-off Current |              |         | KRC827E ~ 829E   | I <sub>O(OFF)</sub>                                            | V <sub>O</sub> =50V, V <sub>I</sub> =0      | -    | -    | 500  | nA  |
| DC Current Gain        |              |         | KRC827E          | G <sub>I</sub>                                                 | V <sub>O</sub> =5V, I <sub>O</sub> =10mA    | 80   | 150  | -    |     |
|                        |              |         | KRC828E          |                                                                |                                             | 80   | 150  | -    |     |
|                        |              |         | KRC829E          |                                                                |                                             | 70   | 140  | -    |     |
| Output Voltage         |              |         | KRC827E ~ 829E   | V <sub>O(ON)</sub>                                             | I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA | -    | 0.1  | 0.3  | V   |
| Input Voltage (ON)     |              |         | KRC827E          | V <sub>I(ON)</sub>                                             | V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA   | -    | 1.2  | 1.8  | V   |
|                        |              |         | KRC828E          |                                                                |                                             | -    | 1.8  | 2.6  |     |
|                        |              |         | KRC829E          |                                                                |                                             | -    | 3.0  | 5.8  |     |
| Input Votlage (OFF)    |              |         | KRC827E          | V <sub>I(OFF)</sub>                                            | V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA   | 0.5  | 0.75 | -    | V   |
|                        |              |         | KRC828E          |                                                                |                                             | 0.6  | 0.88 | -    |     |
|                        |              |         | KRC829E          |                                                                |                                             | 1.5  | 1.82 | -    |     |
| Transition Frequency   |              |         | KRC827E ~ 829E   | f <sub>I</sub> *                                               | V <sub>O</sub> =10V, I <sub>O</sub> =5mA    | -    | 200  | -    | MHz |
| Input Current          |              |         | KRC827E          | I <sub>I</sub>                                                 | V <sub>I</sub> =5V                          | -    | -    | 0.88 | mA  |
|                        |              |         | KRC828E          |                                                                |                                             | -    | -    | 0.36 |     |
|                        |              |         | KRC829E          |                                                                |                                             | -    | -    | 0.16 |     |
| Switching Time         | Rise Time    | KRC827E | t <sub>r</sub>   | V <sub>O</sub> =5V, V <sub>IN</sub> =5V<br>R <sub>L</sub> =1kΩ | -                                           | 0.05 | -    | μS   |     |
|                        |              | KRC828E |                  |                                                                | -                                           | 0.12 | -    |      |     |
|                        |              | KRC829E |                  |                                                                | -                                           | 0.26 | -    |      |     |
|                        | Storage Time | KRC827E | t <sub>stg</sub> |                                                                | -                                           | 2.0  | -    |      |     |
|                        |              | KRC828E |                  |                                                                | -                                           | 2.4  | -    |      |     |
|                        |              | KRC829E |                  |                                                                | -                                           | 1.5  | -    |      |     |
|                        | Fall Time    | KRC827E | t <sub>f</sub>   |                                                                | -                                           | 0.36 | -    |      |     |
|                        |              | KRC828E |                  |                                                                | -                                           | 0.4  | -    |      |     |
|                        |              | KRC829E |                  |                                                                | -                                           | 0.41 | -    |      |     |

Note : \* Characteristic of Transistor Only.

# KRC827E~KRC829E



# KRC827E~KRC829E

