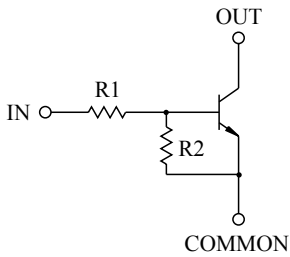


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

#### FEATURES

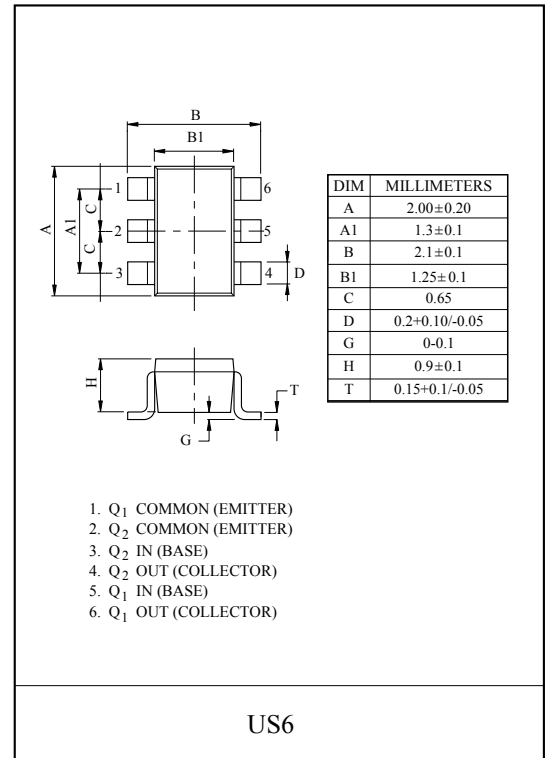
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

#### EQUIVALENT CIRCUIT

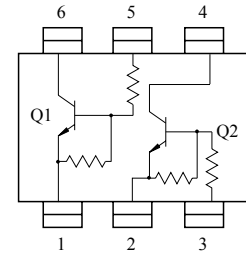


#### BIAS RESISTOR VALUES

| TYPE NO. | R1(k $\Omega$ ) | R2(k $\Omega$ ) |
|----------|-----------------|-----------------|
| KRC827U  | 10              | 47              |
| KRC828U  | 22              | 47              |
| KRC829U  | 47              | 22              |



#### EQUIVALENT CIRCUIT (TOP VIEW)



#### MAXIMUM RATING (Ta=25°C)

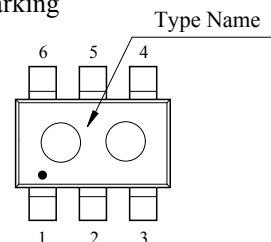
| CHARACTERISTIC            |                | SYMBOL    | RATING    | UNIT |
|---------------------------|----------------|-----------|-----------|------|
| Output Voltage            | KRC827U ~ 829U | $V_O$     | 50        | V    |
| Input Voltage             | KRC827U        | $V_i$     | 30, -6    | V    |
|                           | KRC828U        |           | 40, -7    |      |
|                           | KRC829U        |           | 40, -15   |      |
| Output Current            | KRC827U ~ 829U | $I_O$     | 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 | KRC827U | KRC828U | KRC829U |
|------|---------|---------|---------|
| MARK | YH      | YI      | YJ      |

#### Marking



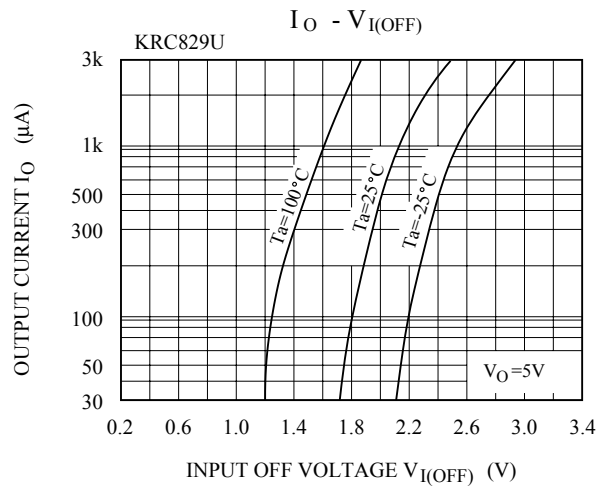
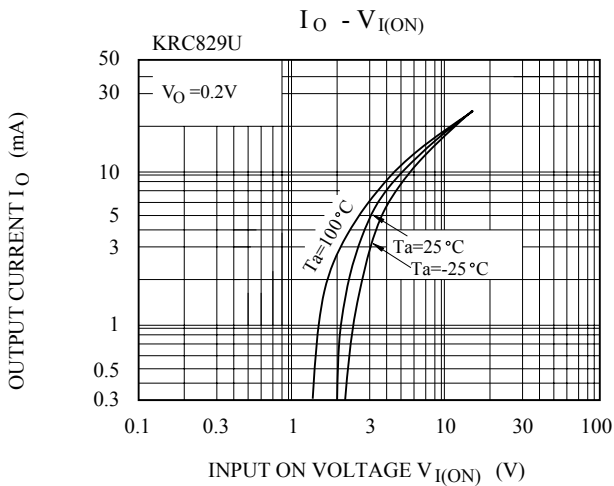
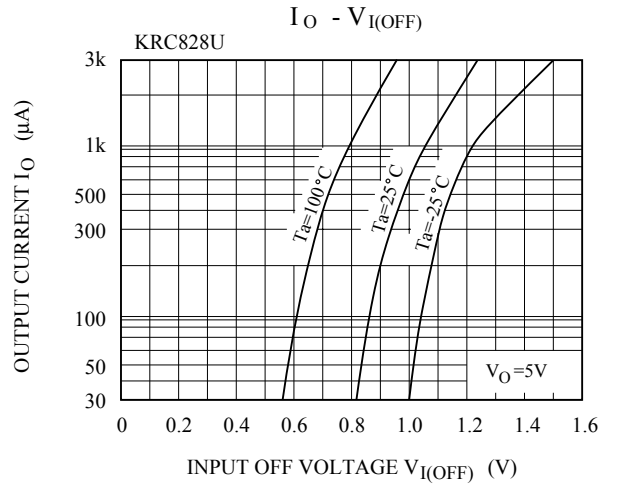
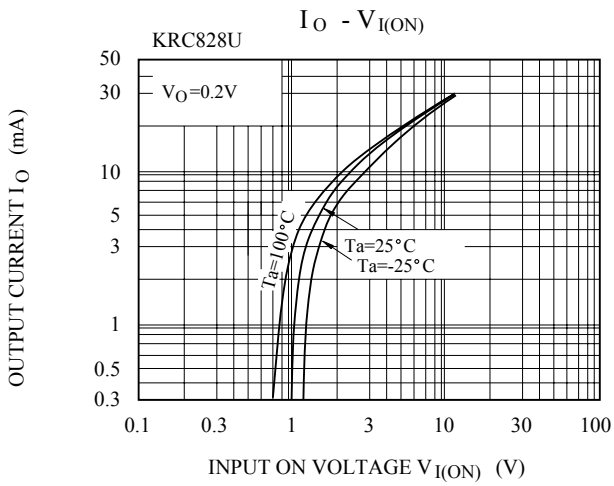
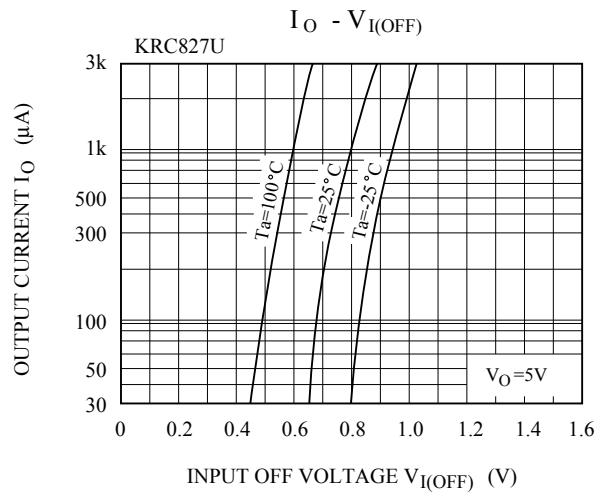
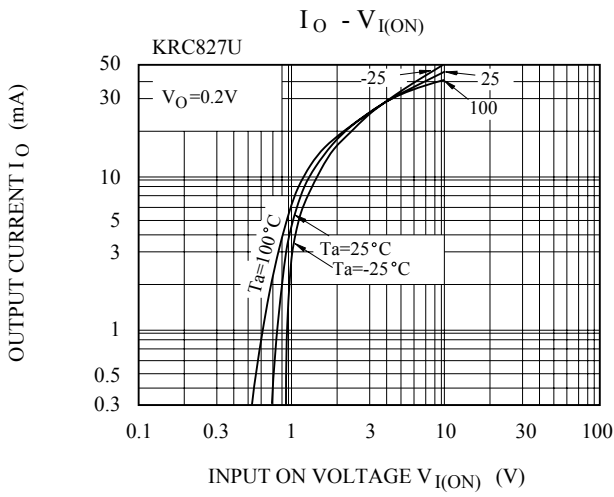
# KRC827U~KRC829U

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC         |                | SYMBOL       | TEST CONDITION                        | MIN.    | TYP. | MAX. | UNIT    |   |
|------------------------|----------------|--------------|---------------------------------------|---------|------|------|---------|---|
| Output Cut-off Current | KRC827U ~ 829U | $I_{O(OFF)}$ | $V_O=50V, V_I=0$                      | -       | -    | 500  | nA      |   |
| DC Current Gain        | KRC827U        | $G_I$        | $V_O=5V, I_O=10mA$                    | 80      | 150  | -    |         |   |
|                        | KRC828U        |              |                                       | 80      | 150  | -    |         |   |
|                        | KRC829U        |              |                                       | 70      | 140  | -    |         |   |
| Output Voltage         | KRC827U ~ 829U | $V_{O(ON)}$  | $I_O=10mA, I_I=0.5mA$                 | -       | 0.1  | 0.3  | V       |   |
| Input Voltage (ON)     | KRC827U        | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$                   | -       | 1.2  | 1.8  | V       |   |
|                        | KRC828U        |              |                                       | -       | 1.8  | 2.6  |         |   |
|                        | KRC829U        |              |                                       | -       | 3.0  | 5.8  |         |   |
| Input Voltage (OFF)    | KRC827U        | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$                   | 0.5     | 0.75 | -    | V       |   |
|                        | KRC828U        |              |                                       | 0.6     | 0.88 | -    |         |   |
|                        | KRC829U        |              |                                       | 1.5     | 1.82 | -    |         |   |
| Transition Frequency   | KRC827U ~ 829U | $f_T^*$      | $V_O=10V, I_O=5mA$                    | -       | 200  | -    | MHz     |   |
| Input Current          | KRC827U        | $I_I$        | $V_I=5V$                              | -       | -    | 0.88 | mA      |   |
|                        | KRC828U        |              |                                       | -       | -    | 0.36 |         |   |
|                        | KRC829U        |              |                                       | -       | -    | 0.16 |         |   |
| Switching Time         | Rise Time      | $t_r$        | $V_O=5V, V_{IN}=5V$<br>$R_L=1k\Omega$ | -       | 0.05 | -    | $\mu S$ |   |
|                        |                |              |                                       | KRC828U | -    | 0.12 |         | - |
|                        |                |              |                                       | KRC829U | -    | 0.26 |         | - |
|                        | Storage Time   | $t_{stg}$    |                                       | KRC827U | -    | 2.0  |         | - |
|                        |                |              |                                       | KRC828U | -    | 2.4  |         | - |
|                        |                |              |                                       | KRC829U | -    | 1.5  |         | - |
|                        | Fall Time      | $t_f$        |                                       | KRC827U | -    | 0.36 |         | - |
|                        |                |              |                                       | KRC828U | -    | 0.4  |         | - |
|                        |                |              |                                       | KRC829U | -    | 0.41 |         | - |

Note : \* Characteristic of Transistor Only.

# KRC827U~KRC829U



# KRC827U~KRC829U

