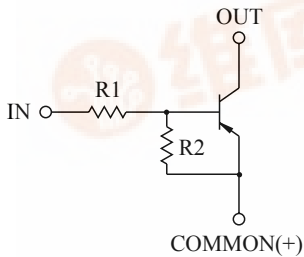


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

#### FEATURES

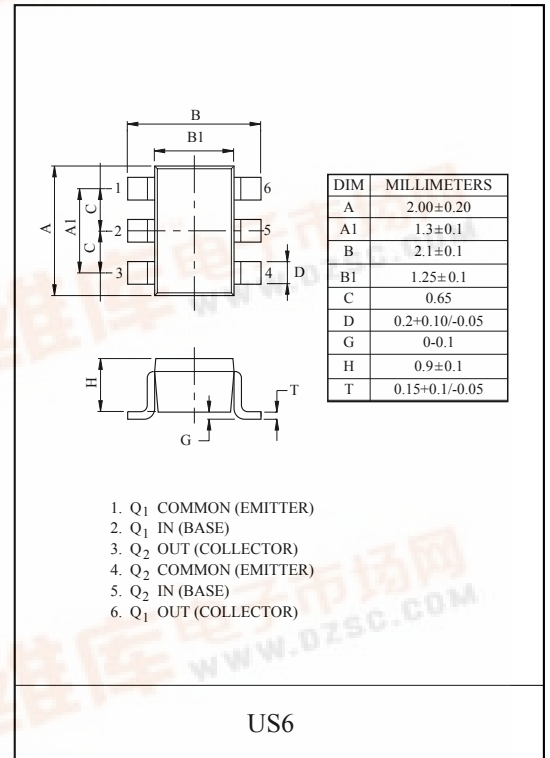
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

#### EQUIVALENT CIRCUIT

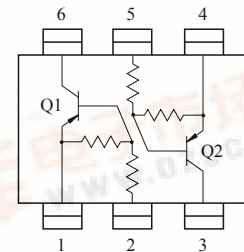


#### BIAS RESISTOR VALUES

| TYPE NO. | R1(kΩ) | R2(kΩ) |
|----------|--------|--------|
| KRA751U  | 4.7    | 4.7    |
| KRA752U  | 10     | 10     |
| KRA753U  | 22     | 22     |
| KRA754U  | 47     | 47     |
| KRA755U  | 2.2    | 47     |
| KRA756U  | 4.7    | 47     |



#### EQUIVALENT CIRCUIT (TOP VIEW)



#### MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC            | SYMBOL         | RATING | UNIT      |           |    |
|---------------------------|----------------|--------|-----------|-----------|----|
| Output Voltage            | KRA751U ~ 756U | $V_o$  | -50       | V         |    |
| Input Voltage             | KRA751U ~ 756U | $V_i$  | -20, 10   | V         |    |
|                           |                |        | -30, 10   |           |    |
|                           |                |        | -40, 10   |           |    |
|                           |                |        | -40, 10   |           |    |
|                           |                |        | -12, 5    |           |    |
|                           |                |        | -20, 5    |           |    |
| Output Current            | KRA751U ~ 756U | $I_o$  | -100      | mA        |    |
| Power Dissipation         |                |        | $P_D$ *   | 200       | mW |
| Junction Temperature      |                |        | $T_j$     | 150       | °C |
| Storage Temperature Range |                |        | $T_{stg}$ | -55 ~ 150 | °C |

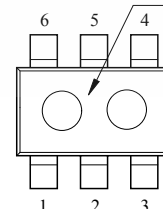
\* Total Rating.

#### MARK SPEC

| TYPE | KRA751U | KRA752U | KRA753U | KRA754U | KRA755U | KRA756U |
|------|---------|---------|---------|---------|---------|---------|
| MARK | PA      | PB      | PC      | PD      | PE      | PF      |

#### Marking

#### Type Name



# KRA751U~KRA756U

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC         |                | SYMBOL       | TEST CONDITION          | MIN. | TYP.  | MAX.  | UNIT |
|------------------------|----------------|--------------|-------------------------|------|-------|-------|------|
| Output Cut-off Current | KRA751U ~ 756U | $I_{O(OFF)}$ | $V_O=-50V, V_I=0$       | -    | -     | -500  | nA   |
| DC Current Gain        | KRA751U        | $G_I$        | $V_O=-5V, I_O=-10mA$    | 30   | 55    | -     |      |
|                        | KRA752U        |              |                         | 50   | 80    | -     |      |
|                        | KRA753U        |              |                         | 70   | 120   | -     |      |
|                        | KRA754U        |              |                         | 80   | 200   | -     |      |
|                        | KRA755U        |              |                         | 80   | 200   | -     |      |
|                        | KRA756U        |              |                         | 80   | 200   | -     |      |
| Output Voltage         | KRA751U ~ 756U | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$ | -    | -0.1  | -0.3  | V    |
| Input Voltage (ON)     | KRA751U        | $V_{I(ON)}$  | $V_O=-0.2V, I_O=-5mA$   | -    | -1.5  | -2.0  | V    |
|                        | KRA752U        |              |                         | -    | -1.8  | -2.4  |      |
|                        | KRA753U        |              |                         | -    | -2.1  | -3.0  |      |
|                        | KRA754U        |              |                         | -    | -2.8  | -5.0  |      |
|                        | KRA755U        |              |                         | -    | -0.8  | -1.1  |      |
|                        | KRA756U        |              |                         | -    | -0.9  | -1.3  |      |
| Input Voltage (OFF)    | KRA751U ~ 754U | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$   | -1.0 | -1.2  | -     | V    |
|                        | KRA755U ~ 756U |              |                         | -0.5 | -0.65 | -     |      |
| Transition Frequency   | KRA751U ~ 756U | $f_T^*$      | $V_O=-10V, I_O=-5mA$    | -    | 200   | -     | MHz  |
| Input Current          | KRA751U        | $I_I$        | $V_I=-5V$               | -    | -     | -1.8  | mA   |
|                        | KRA752U        |              |                         | -    | -     | -0.88 |      |
|                        | KRA753U        |              |                         | -    | -     | -0.36 |      |
|                        | KRA754U        |              |                         | -    | -     | -0.18 |      |
|                        | KRA755U        |              |                         | -    | -     | -3.6  |      |
|                        | KRA756U        |              |                         | -    | -     | -1.8  |      |

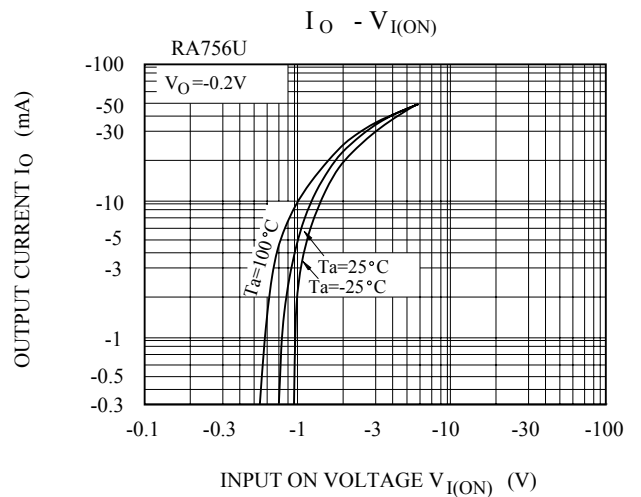
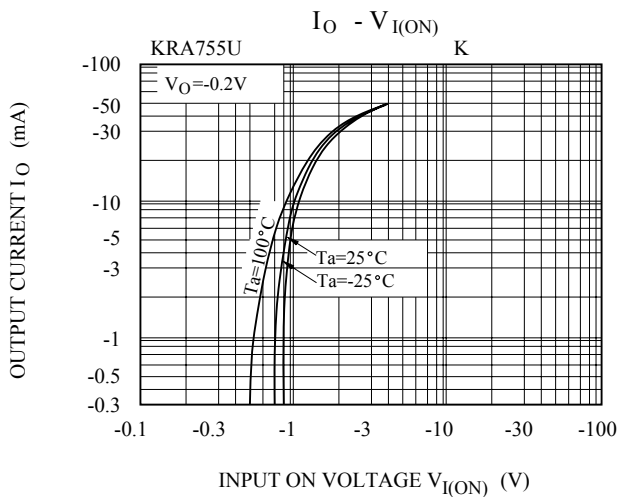
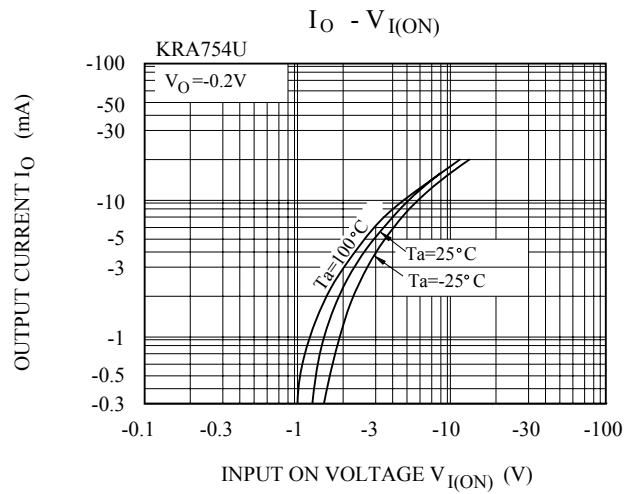
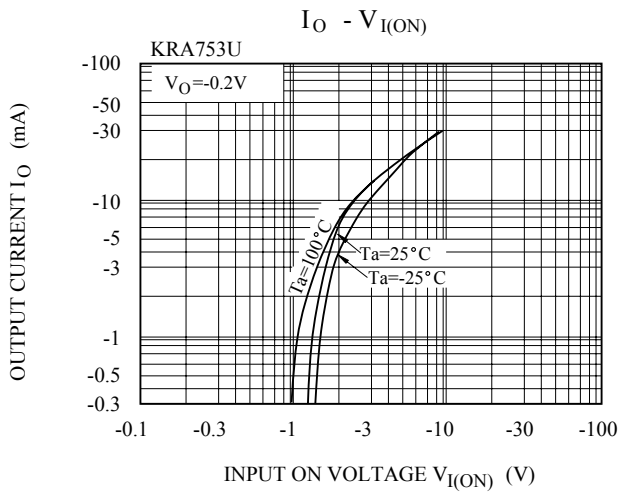
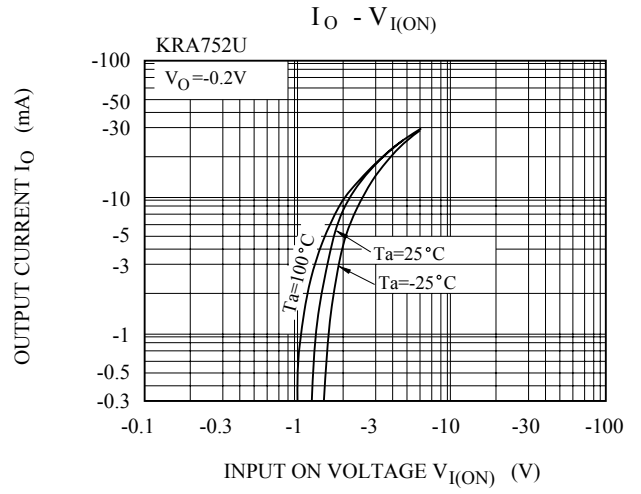
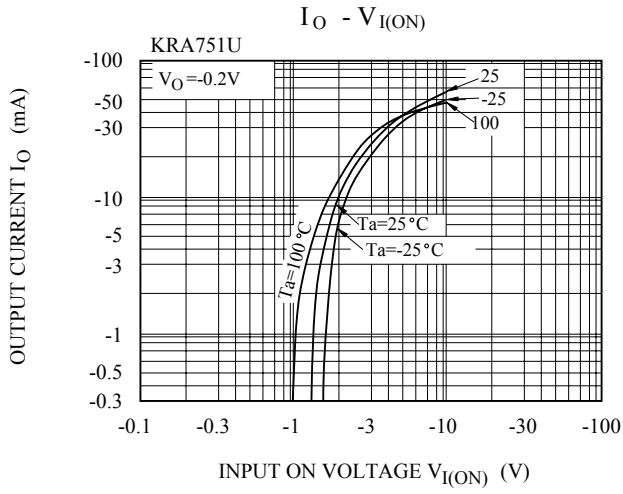
Note : \* Characteristic of Transistor Only.

# KRA751U~KRA756U

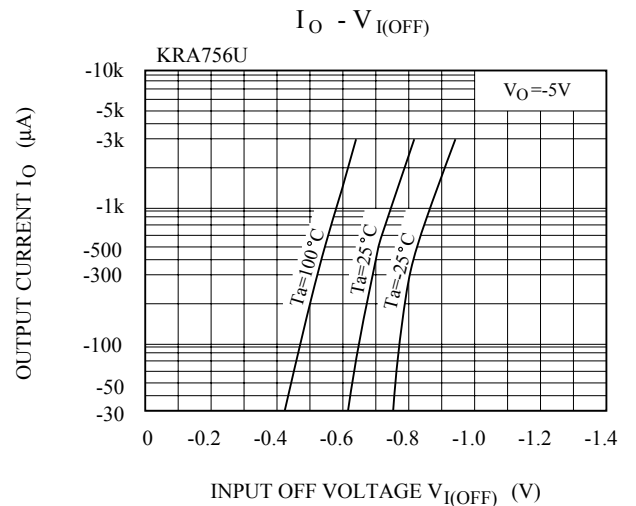
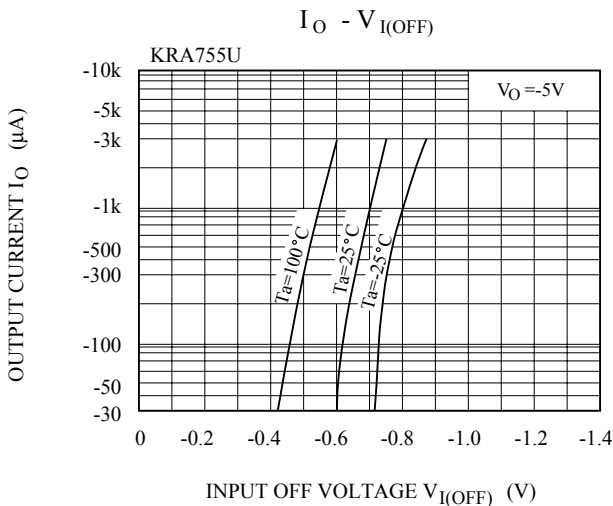
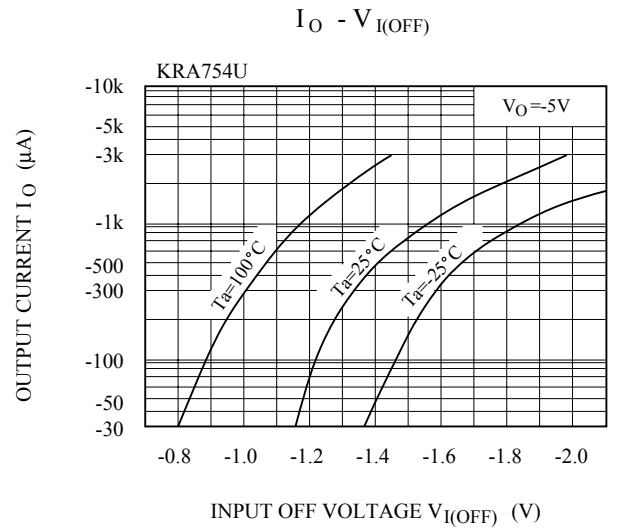
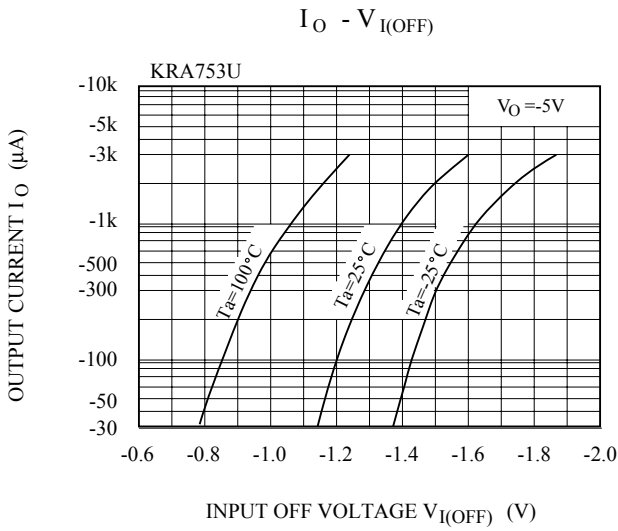
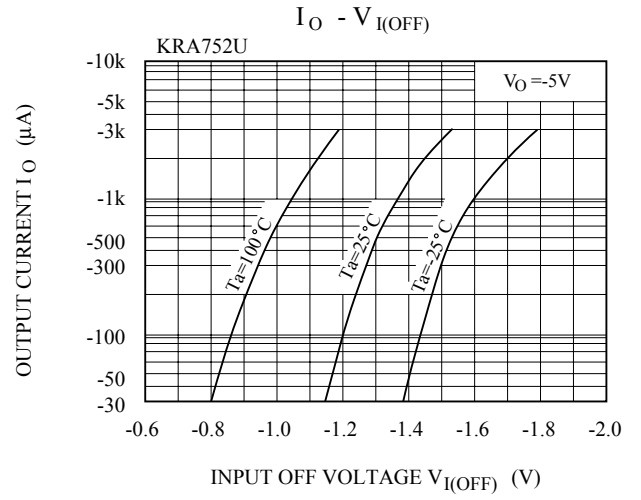
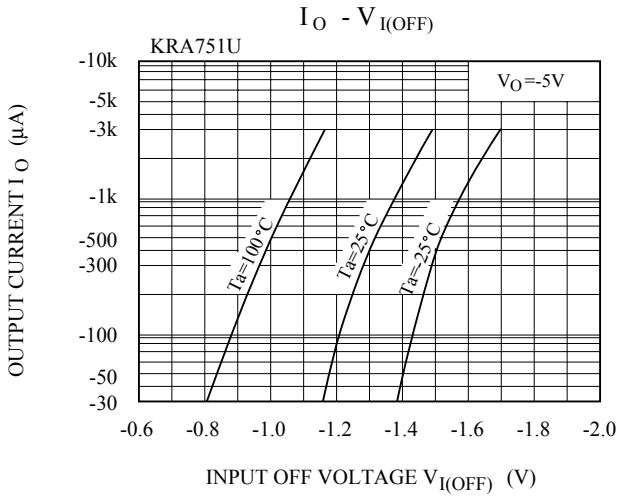
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC |              | SYMBOL  | TEST CONDITION                                    | MIN.      | TYP. | MAX. | UNIT    |   |
|----------------|--------------|---------|---|-----------|------|------|---------|---|
| Switching Time | Rise Time    | KRA751U | $V_O = -5V$<br>$V_{IN} = -5V$<br>$R_L = 1k\Omega$ | -         | 0.07 | -    | $\mu S$ |   |
|                |              | KRA752U |   | -         | 0.06 | -    |         |   |
|                |              | KRA753U |   | -         | 0.2  | -    |         |   |
|                |              | KRA754U |   | -         | 0.24 | -    |         |   |
|                |              | KRA755U |   | -         | 0.02 | -    |         |   |
|                |              | KRA756U |   | -         | 0.07 | -    |         |   |
|                | Storage Time | KRA751U |   | $t_{stg}$ | -    | 1.1  |         | - |
|                |              | KRA752U |   |           | -    | 1.1  |         | - |
|                |              | KRA753U |   |           | -    | 1.1  |         | - |
|                |              | KRA754U |   |           | -    | 1.1  |         | - |
|                |              | KRA755U |   |           | -    | 1.1  |         | - |
|                |              | KRA756U |   |           | -    | 1.1  |         | - |
|                | Fall Time    | KRA751U |   | $t_f$     | -    | 0.15 |         | - |
|                |              | KRA752U |   |           | -    | 0.24 |         | - |
|                |              | KRA753U |   |           | -    | 0.38 |         | - |
|                |              | KRA754U |   |           | -    | 0.63 |         | - |
|                |              | KRA755U |   |           | -    | 0.1  |         | - |
|                |              | KRA756U |   |           | -    | 0.2  |         | - |

# KRA751U~KRA756U



# KRA751U~KRA756U



# KRA751U~KRA756U

