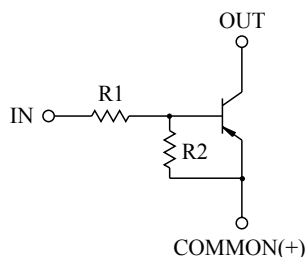


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

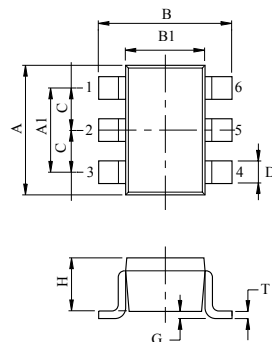
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Packing Density.

### EQUIVALENT CIRCUIT



### BIAS RESISTOR VALUES

| TYPE NO. | R1(k $\Omega$ ) | R2(k $\Omega$ ) |
|----------|-----------------|-----------------|
| KRA757U  | 10              | 47              |
| KRA758U  | 22              | 47              |
| KRA759U  | 47              | 22              |

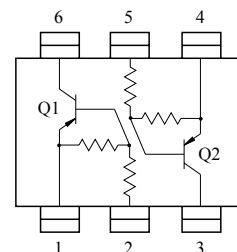


| DIM | MILLIMETERS     |
|-----|-----------------|
| A   | 2.00 $\pm$ 0.20 |
| A1  | 1.3 $\pm$ 0.1   |
| B   | 2.1 $\pm$ 0.1   |
| B1  | 1.25 $\pm$ 0.1  |
| C   | 0.65            |
| D   | 0.2+0.10/-0.05  |
| G   | 0-0.1           |
| H   | 0.9 $\pm$ 0.1   |
| T   | 0.15+0.1/-0.05  |

1. Q<sub>1</sub> COMMON (EMITTER)
2. Q<sub>1</sub> IN (BASE)
3. Q<sub>2</sub> OUT (COLLECTOR)
4. Q<sub>2</sub> COMMON (EMITTER)
5. Q<sub>2</sub> IN (BASE)
6. Q<sub>1</sub> OUT (COLLECTOR)

US6

### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC            |                | SYMBOL           | RATING    | UNIT |
|---------------------------|----------------|------------------|-----------|------|
| Output Voltage            | KRA757U ~ 759U | V <sub>O</sub>   | -50       | V    |
| Input Voltage             | KRA757U        | V <sub>I</sub>   | -30, 6    | V    |
|                           | KRA758U        |                  | -40, 7    |      |
|                           | KRA759U        |                  | -40, 15   |      |
| Output Current            | KRA757U ~ 759U | I <sub>O</sub>   | -100      | mA   |
| 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   |

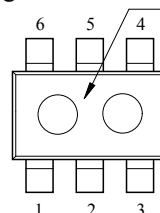
\* Total Rating.

### MARK SPEC

| TYPE | KRA757U | KRA758U | KRA759U |
|------|---------|---------|---------|
| MARK | PH      | PI      | PJ      |

### Marking

### Type Name



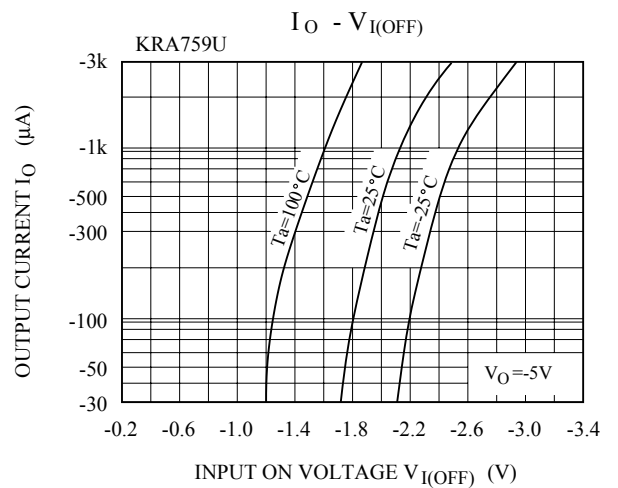
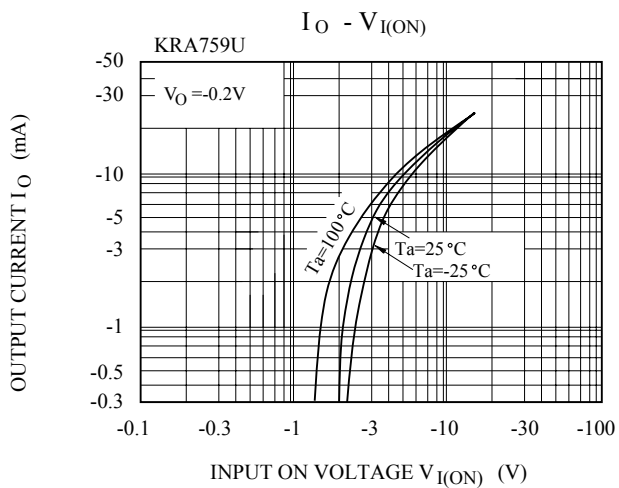
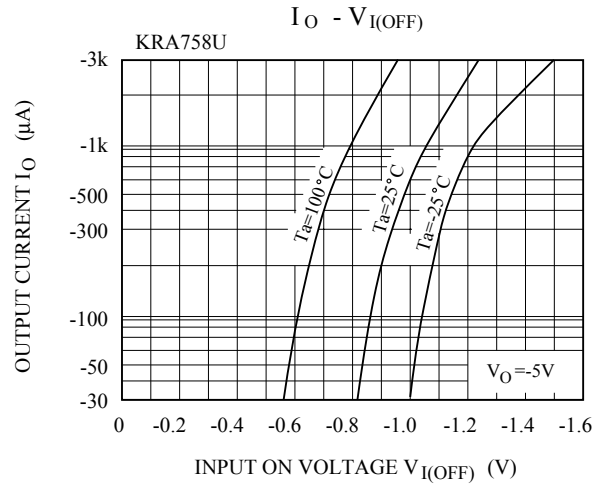
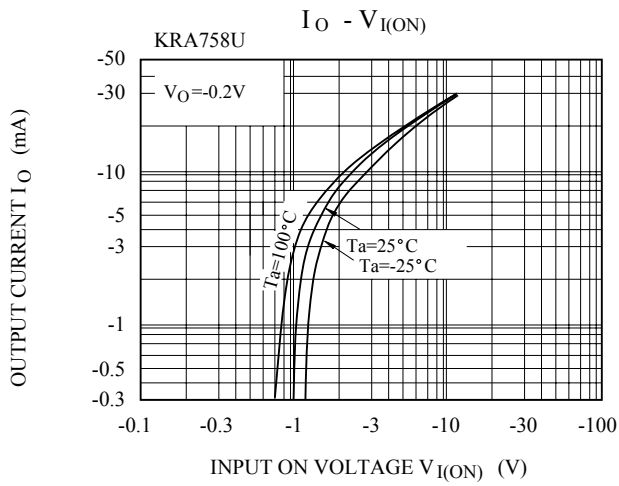
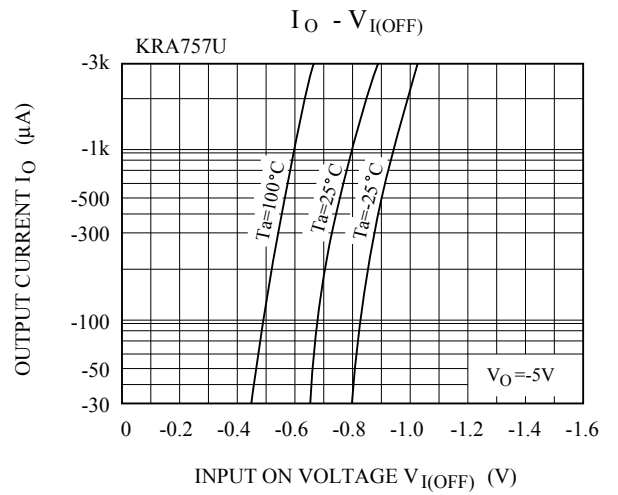
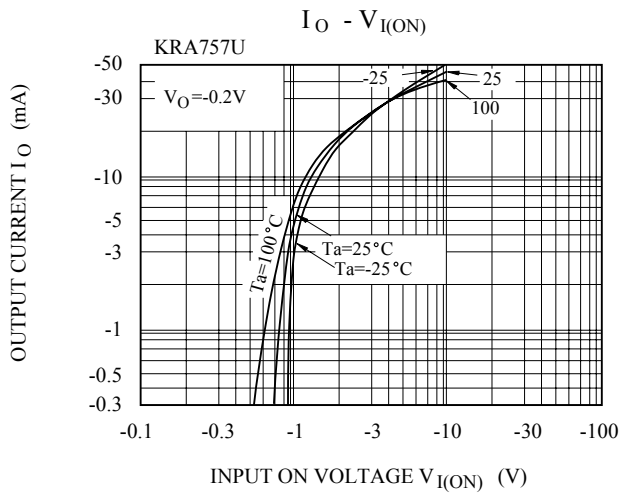
# KRA757U~KRA759U

## ELECTRICAL CHARACTERISTICS (Ta=25℃)

| CHARACTERISTIC         |                | SYMBOL       | TEST CONDITION                                | MIN. | TYP.  | MAX.  | UNIT    |
|------------------------|----------------|--------------|-----------------------------------------------|------|-------|-------|---------|
| Output Cut-off Current | KRA757U ~ 759U | $I_{O(OFF)}$ | $V_O = -50V, V_I = 0$                         | -    | -     | -500  | nA      |
| DC Current Gain        | KRA757U        | $G_I$        | $V_O = -5V, I_O = -10mA$                      | 80   | 150   | -     |         |
|                        | KRA758U        |              |                                               | 80   | 150   | -     |         |
|                        | KRA759U        |              |                                               | 70   | 140   | -     |         |
| Output Voltage         | KRA757U ~ 759U | $V_{O(ON)}$  | $I_O = -10mA, I_I = -0.5mA$                   | -    | -0.1  | -0.3  | V       |
| Input Voltage (ON)     | KRA757U        | $V_{I(ON)}$  | $V_O = -0.2V, I_O = -5mA$                     | -    | -1.2  | -1.8  | V       |
|                        | KRA758U        |              |                                               | -    | -1.8  | -2.6  |         |
|                        | KRA759U        |              |                                               | -    | -3.0  | -5.8  |         |
| Input Voltage (OFF)    | KRA757U        | $V_{I(OFF)}$ | $V_O = -5V, I_O = -0.1mA$                     | -0.5 | -0.75 | -     | V       |
|                        | KRA758U        |              |                                               | -0.6 | -0.88 | -     |         |
|                        | KRA759U        |              |                                               | -1.5 | -1.82 | -     |         |
| Transition Frequency   | KRA757U ~ 759U | $f_T^*$      | $V_O = -10V, I_O = -5mA$                      | -    | 200   | -     | MHz     |
| Input Current          | KRA757U        | $I_I$        | $V_I = -5V$                                   | -    | -     | -0.88 | mA      |
|                        | KRA758U        |              |                                               | -    | -     | -0.36 |         |
|                        | KRA759U        |              |                                               | -    | -     | -0.16 |         |
| Switching Time         | Rise Time      | KRA757U      | $V_O = -5V, V_{IN} = -5V$<br>$R_L = 1k\Omega$ | -    | 0.07  | -     | $\mu S$ |
|                        |                | KRA758U      |                                               | -    | 0.20  | -     |         |
|                        |                | KRA759U      |                                               | -    | 0.38  | -     |         |
|                        | Storage Time   | KRA757U      |                                               | -    | 1.1   | -     |         |
|                        |                | KRA758U      |                                               | -    | 1.3   | -     |         |
|                        |                | KRA759U      |                                               | -    | 0.7   | -     |         |
|                        | Fall Time      | KRA757U      |                                               | -    | 0.35  | -     |         |
|                        |                | KRA758U      |                                               | -    | 0.4   | -     |         |
|                        |                | KRA759U      |                                               | -    | 0.48  | -     |         |

Note : \* Characteristic of Transistor Only.

# KRA757U~KRA759U



# KRA757U~KRA759U

