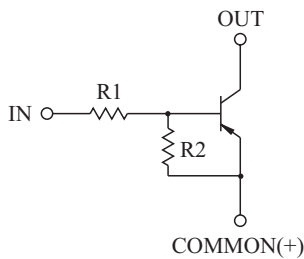


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

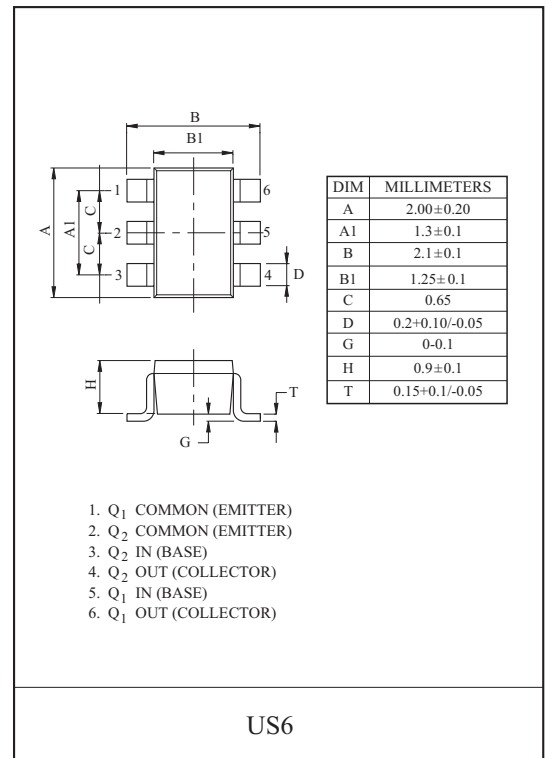
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

### EQUIVALENT CIRCUIT

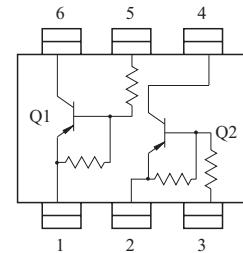


### BIAS RESISTOR VALUES

| TYPE NO. | R1(k Ω) | R2(k Ω) |
|----------|---------|---------|
| KRA721U  | 4.7     | 4.7     |
| KRA722U  | 10      | 10      |
| KRA723U  | 22      | 22      |
| KRA724U  | 47      | 47      |
| KRA725U  | 2.2     | 47      |
| KRA726U  | 4.7     | 47      |



### EQUIVALENT CIRCUIT (TOP VIEW)



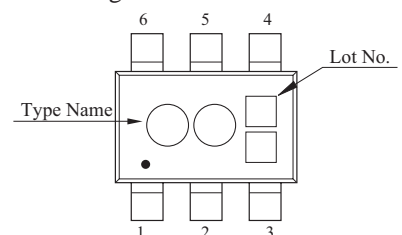
| CHARACTERISTIC            |              | SYMBOL    | RATING  | UNIT |
|---------------------------|--------------|-----------|---------|------|
| Output Voltage            | KRA721U~726U | $V_O$     | -50     | V    |
| Input Voltage             | KRA721U      | $V_I$     | -20, 10 | V    |
|                           | KRA722U      |           | -30, 10 |      |
|                           | KRA723U      |           | -40, 10 |      |
|                           | KRA724U      |           | -40, 10 |      |
|                           | KRA725U      |           | -12, 5  |      |
|                           | KRA726U      |           | -20, 5  |      |
| Output Current            | KRA721U~726U | $I_O$     | -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 | KRA721U | KRA722U | KRA723U | KRA724U | KRA725U | KRA726U |
|------|---------|---------|---------|---------|---------|---------|
| MARK | JA      | JB      | JC      | JD      | JE      | JF      |

### Marking



# KRA721U~KRA726U

## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| CHARACTERISTIC         |               | SYMBOL       | TEST CONDITION          | MIN. | TYP.  | MAX.  | UNIT |
|------------------------|---------------|--------------|-------------------------|------|-------|-------|------|
| Output Cut-off Current | KRA721U ~726U | $I_{O(OFF)}$ | $V_O=-50V, V_I=0$       | -    | -     | -500  | nA   |
| DC Current Gain        | KRA721U       | $G_I$        | $V_O=-5V, I_O=-10mA$    | 30   | 55    | -     |      |
|                        | KRA722U       |              |                         | 50   | 80    | -     |      |
|                        | KRA723U       |              |                         | 70   | 120   | -     |      |
|                        | KRA724U       |              |                         | 80   | 200   | -     |      |
|                        | KRA725U       |              |                         | 80   | 200   | -     |      |
|                        | KRA726U       |              |                         | 80   | 200   | -     |      |
| Output Voltage         | KRA721U ~726U | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$ | -    | -0.1  | -0.3  | V    |
| Input Voltage (ON)     | KRA721U       | $V_{I(ON)}$  | $V_O=-0.2V, I_O=-5mA$   | -    | -1.5  | -2.0  | V    |
|                        | KRA722U       |              |                         | -    | -1.8  | -2.4  |      |
|                        | KRA723U       |              |                         | -    | -2.1  | -3.0  |      |
|                        | KRA724U       |              |                         | -    | -2.8  | -5.0  |      |
|                        | KRA725U       |              |                         | -    | -0.8  | -1.1  |      |
|                        | KRA726U       |              |                         | -    | -0.9  | -1.3  |      |
| Input Voltage (OFF)    | KRA721U ~724U | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$   | -1.0 | -1.2  | -     | V    |
|                        | KRA725U ~726U |              |                         | -0.5 | -0.65 | -     |      |
| Transition Frequency   | KRA721U ~726U | $f_T^*$      | $V_O=-10V, I_O=-5mA$    | -    | 200   | -     | MHz  |
| Input Current          | KRA721U       | $I_I$        | $V_I=-5V$               | -    | -     | -1.8  | mA   |
|                        | KRA722U       |              |                         | -    | -     | -0.88 |      |
|                        | KRA723U       |              |                         | -    | -     | -0.36 |      |
|                        | KRA724U       |              |                         | -    | -     | -0.18 |      |
|                        | KRA725U       |              |                         | -    | -     | -3.6  |      |
|                        | KRA726U       |              |                         | -    | -     | -1.8  |      |

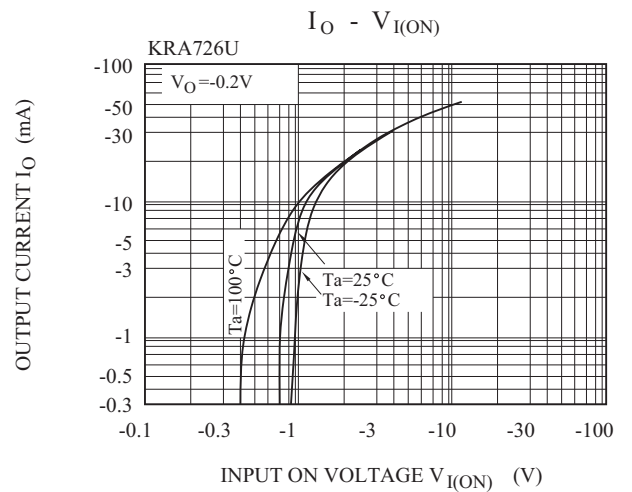
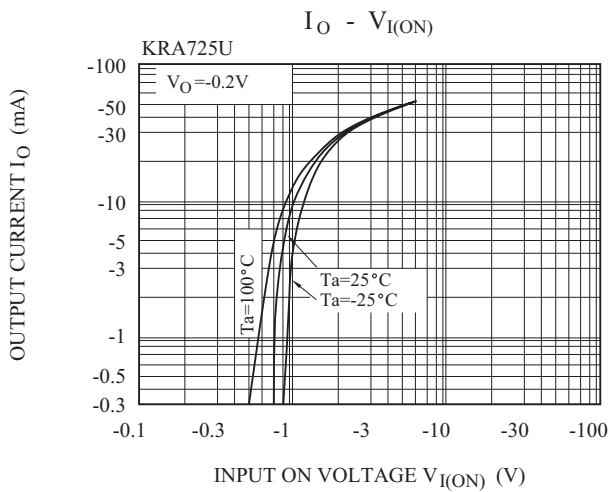
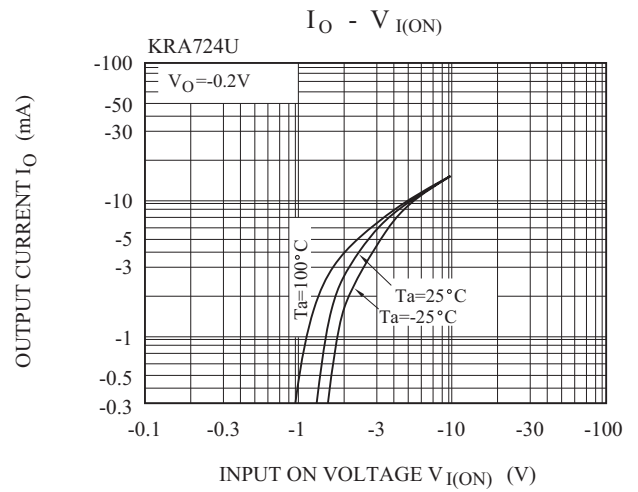
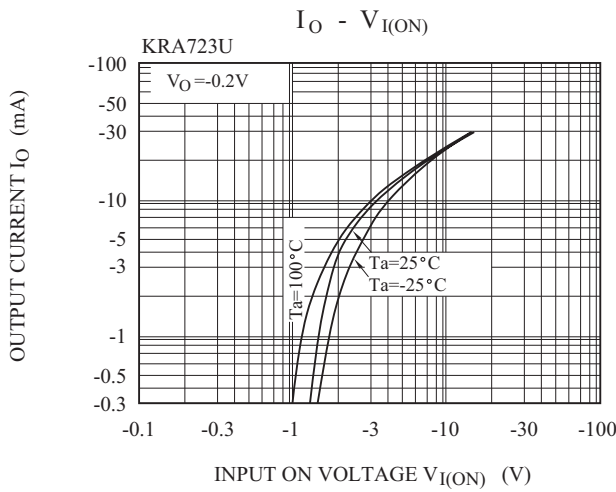
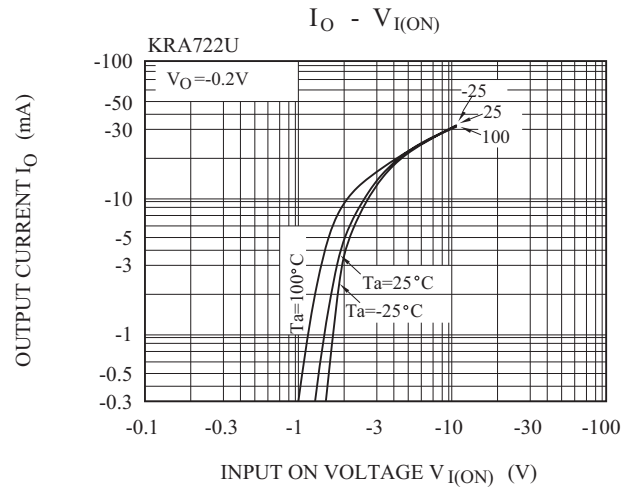
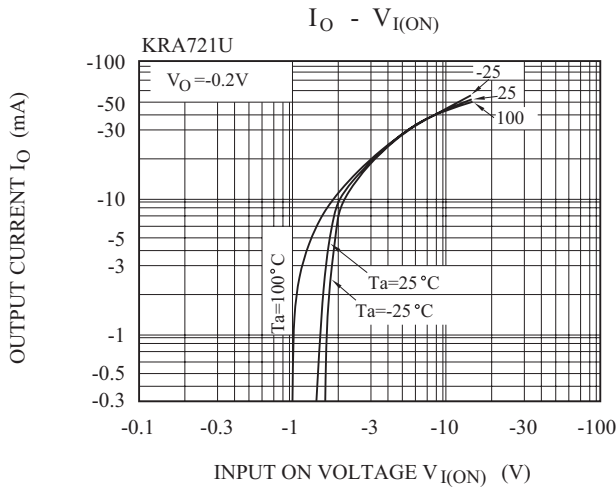
Note : \* Characteristic of Transistor Only.

# KRA721U~KRA726U

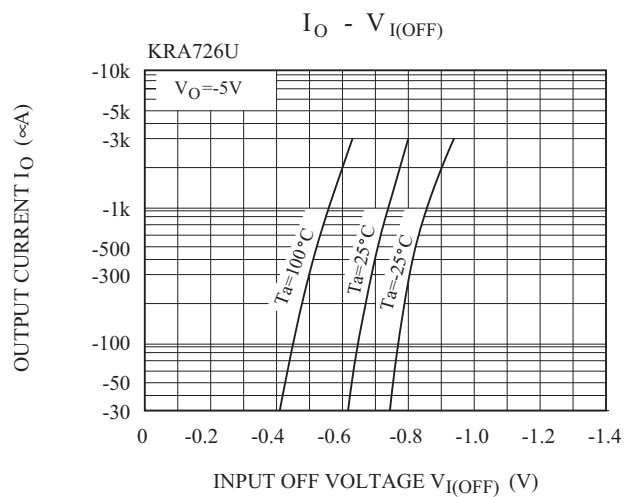
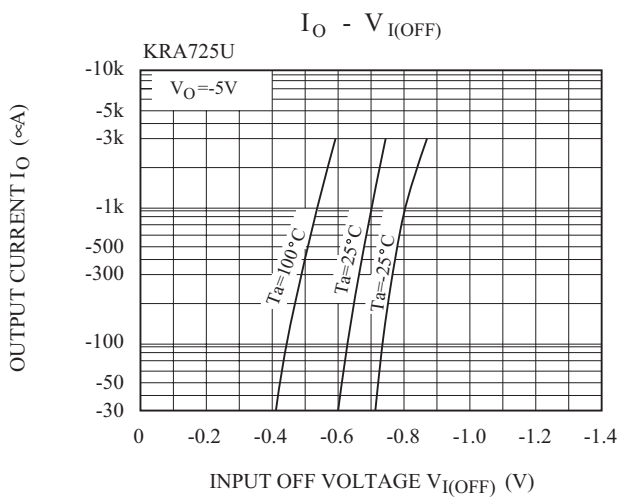
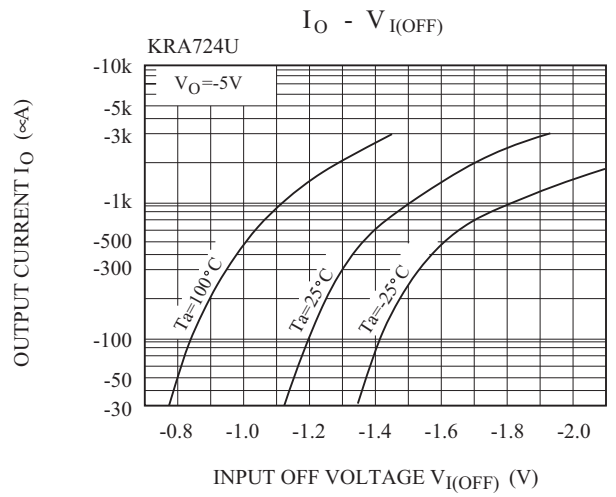
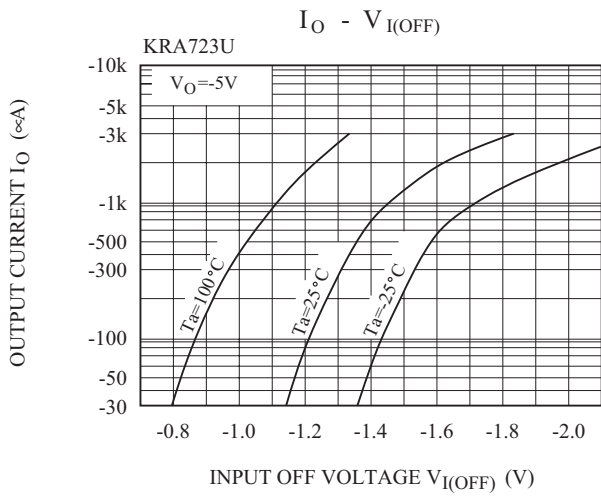
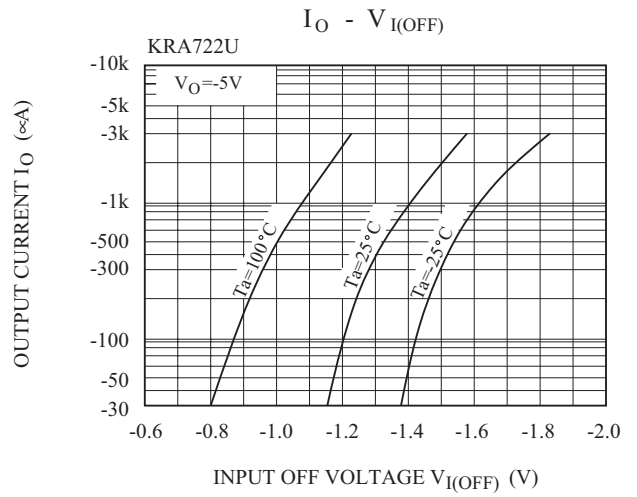
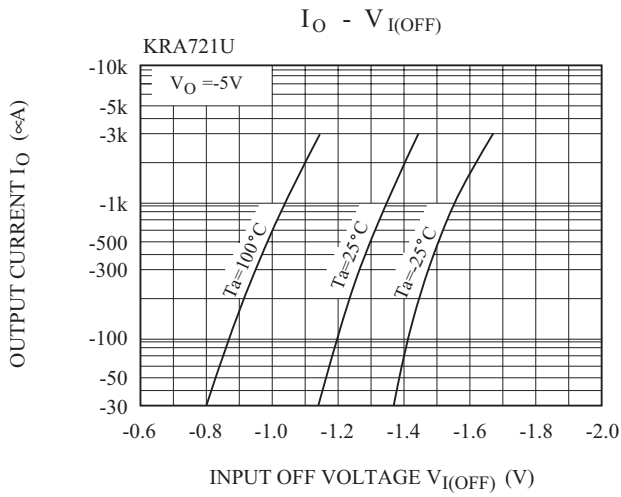
## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| CHARACTERISTIC |              | SYMBOL  | TEST CONDITION                                     | MIN.      | TYP. | MAX. | UNIT    |   |
|----------------|--------------|---------|--|-----------|------|------|---------|---|
| Switching Time | Rise Time    | KRA721U | $V_O = -5V$<br>$V_{IN} = -5V$<br>$R_L = 1k \Omega$ | -         | 0.07 | -    | $\mu S$ |   |
|                |              | KRA722U |  | -         | 0.06 | -    |         |   |
|                |              | KRA723U |  | -         | 0.2  | -    |         |   |
|                |              | KRA724U |  | -         | 0.24 | -    |         |   |
|                |              | KRA725U |  | -         | 0.02 | -    |         |   |
|                |              | KRA726U |  | -         | 0.07 | -    |         |   |
|                | Storage Time | KRA721U |  | $t_{stg}$ | -    | 1.1  |         | - |
|                |              | KRA722U |  | -         | -    | 1.1  |         | - |
|                |              | KRA723U |  | -         | -    | 1.1  |         | - |
|                |              | KRA724U |  | -         | -    | 1.1  |         | - |
|                |              | KRA725U |  | -         | -    | 1.1  |         | - |
|                |              | KRA726U |  | -         | -    | 1.1  |         | - |
|                | Fall Time    | KRA721U |  | $t_f$     | -    | 0.15 |         | - |
|                |              | KRA722U |  | -         | -    | 0.24 |         | - |
|                |              | KRA723U |  | -         | -    | 0.38 |         | - |
|                |              | KRA724U |  | -         | -    | 0.63 |         | - |
|                |              | KRA725U |  | -         | -    | 0.1  |         | - |
|                |              | KRA726U |  | -         | -    | 0.2  |         | - |

# KRA721U~KRA726U



# KRA721U~KRA726U



# KRA721U~KRA726U

