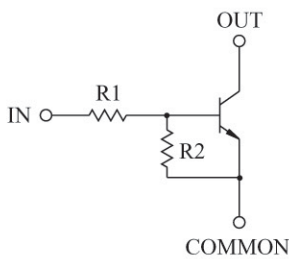


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

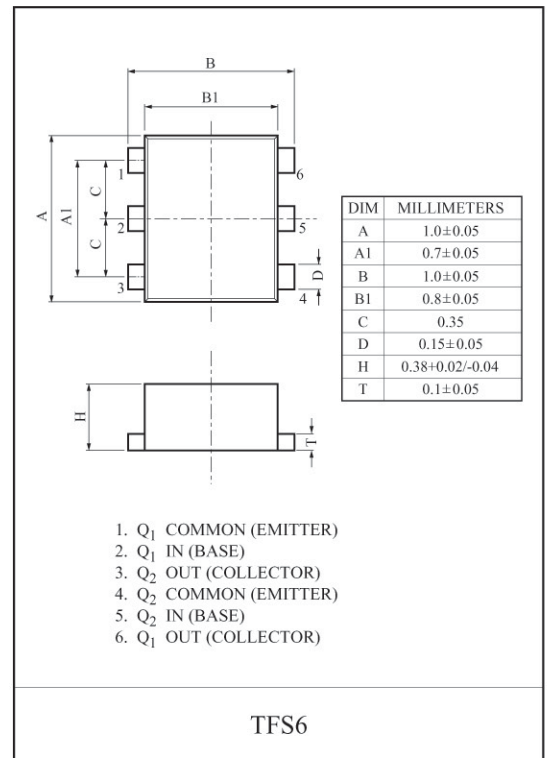
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- Thin Fine Pitch Super mini 6pin Package.

### EQUIVALENT CIRCUIT

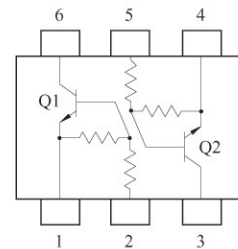


### BIAS RESISTOR VALUES

| TYPE NO. | R1(kΩ) | R2(kΩ) |
|----------|--------|--------|
| RC857F   | 10     | 47     |
| RC858F   | 22     | 47     |
| RC85 F   | 47     | 22     |



### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta 25 °C)

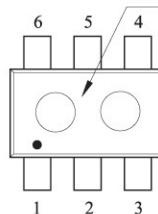
| CHARACTERISTIC            |              | SYMBOL    | RATING   | UNIT |
|---------------------------|--------------|-----------|----------|------|
| Output Voltage            | RC857F 85 F  | $V_O$     | 20       | V    |
| Input Voltage             | KRC857F      | $V_{EBO}$ | 10/-6    | V    |
|                           | KRC858F      |           | 10/-7    |      |
|                           | KRC859F      |           | 10/-15   |      |
| Output Current            | KRC857F~859F | $I_O$     | 50       | mA   |
| Power Dissipation         |              | $P_D^*$   | 50       | mW   |
| Junction Temperature      |              | $T_j$     | 150      | °C   |
| Storage Temperature Range |              | $T_{stg}$ | 55 ~ 150 | °C   |

\* Total Rating.

### MARK SPEC

| TYPE | RC857F | RC858F | RC85 F |
|------|--------|--------|--------|
| MAR  | LG     | LH     | L      |

Marking Type Name



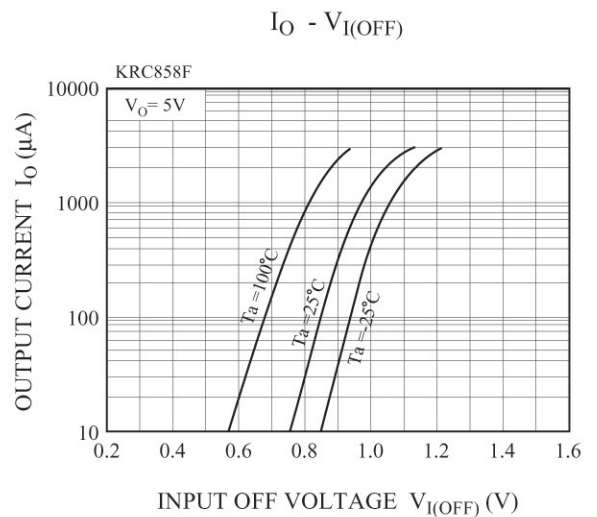
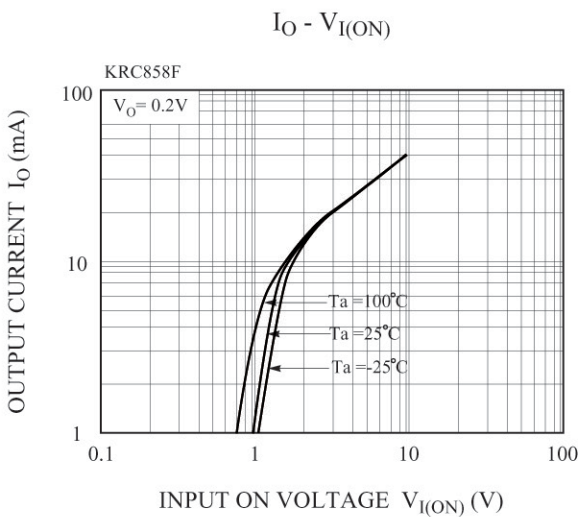
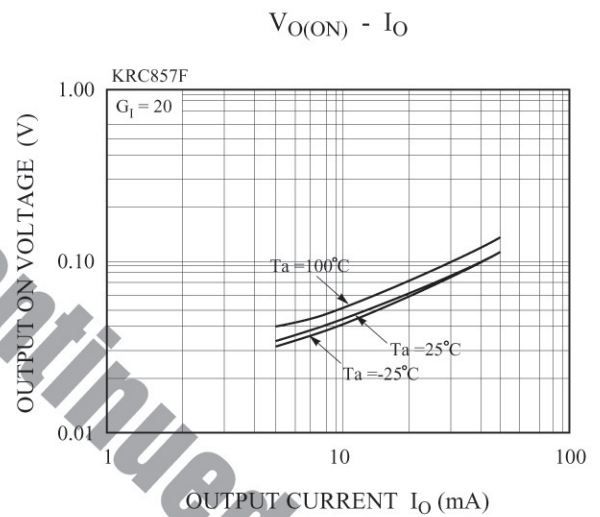
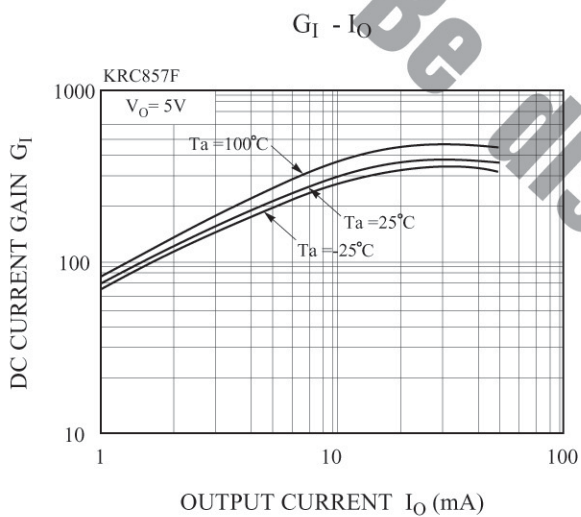
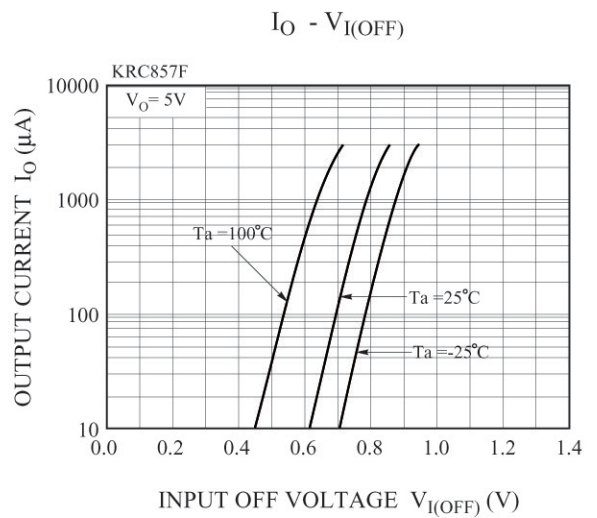
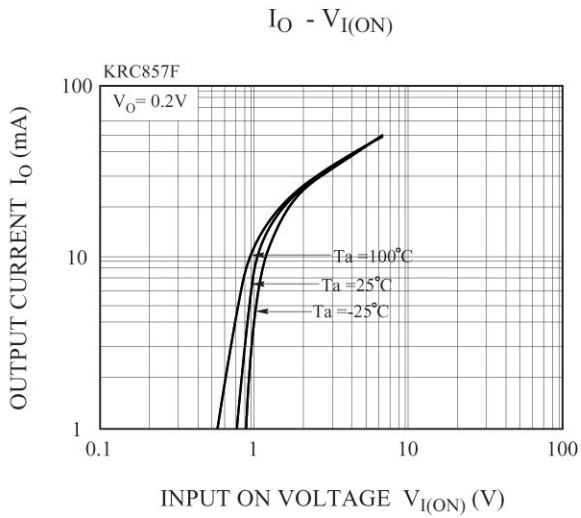
# KRC857F~KRC859F

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC         |              | SYMBOL       | TEST CONDITION        | MIN. | TYP. | MAX. | UNIT       |
|------------------------|--------------|--------------|-----------------------|------|------|------|------------|
| Output Cut-off Current | KRC857F~859F | $I_{O(OFF)}$ | $V_O=20V, V_I=0$      | -    | -    | 500  | nA         |
| DC Current Gain        | KRC857F      | $G_I$        | $V_O=5V, I_O=10mA$    | 120  | -    | -    |            |
|                        | KRC858F      |              |                       | 120  | -    | -    |            |
|                        | KRC859F      |              |                       | 100  | -    | -    |            |
| Output Voltage         | KRC857F~859F | $V_{O(ON)}$  | $I_O=5mA, I_I=0.25mA$ | -    | -    | 0.15 | V          |
| Input Voltage (ON)     | KRC857F      | $V_{I(ON)}$  | $V_O=0.2V, I_O=5mA$   | -    | -    | 1.5  | V          |
|                        | KRC858F      |              |                       | -    | -    | 2.2  |            |
|                        | KRC859F      |              |                       | -    | -    | 5.0  |            |
| Input Voltage (OFF)    | KRC857F      | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$   | 0.5  | -    | -    | V          |
|                        | KRC858F      |              |                       | 0.6  | -    | -    |            |
|                        | KRC859F      |              |                       | 1.3  | -    | -    |            |
| Input Current          | KRC857F      | $I_I$        | $V_I=5V$              | -    | -    | 0.88 | mA         |
|                        | KRC858F      |              |                       | -    | -    | 0.36 |            |
|                        | KRC859F      |              |                       | -    | -    | 0.16 |            |
| Input Resistor         | KRC857F      | $R_I$        | -                     | 7    | 10   | 13   | k $\Omega$ |
|                        | KRC858F      |              |                       | 15.4 | 22   | 28.6 |            |
|                        | KRC859F      |              |                       | 32.9 | 47   | 61.1 |            |
| Resistor Ratio         | KRC857F      | $R_2/R_1$    | -                     | 3.7  | 4.7  | 5.7  |            |
|                        | KRC858F      |              |                       | 1.7  | 2.1  | 2.6  |            |
|                        | KRC859F      |              |                       | 0.37 | 0.47 | 0.57 |            |

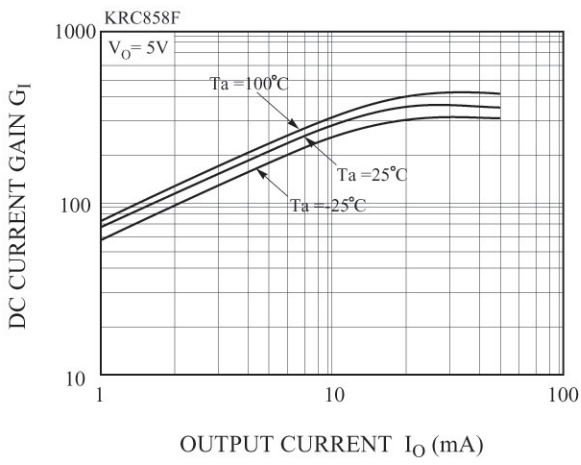
Discontinued

# KRC857F~KRC859F

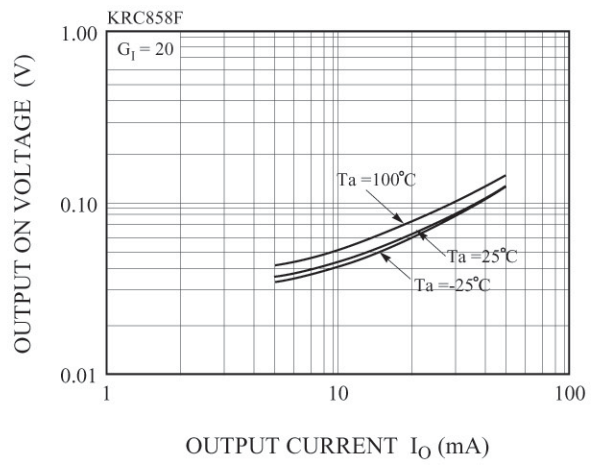


# KRC857F~KRC859F

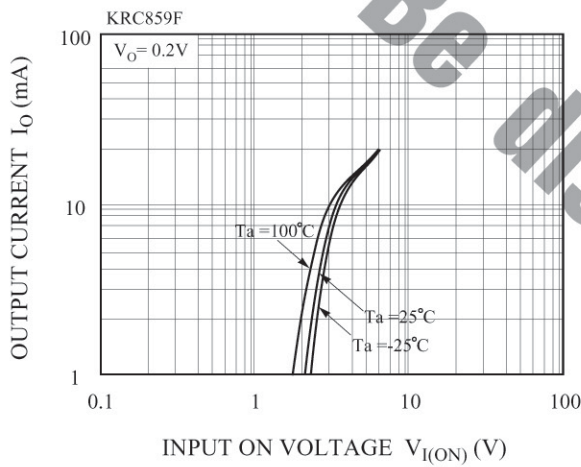
$G_I - I_O$



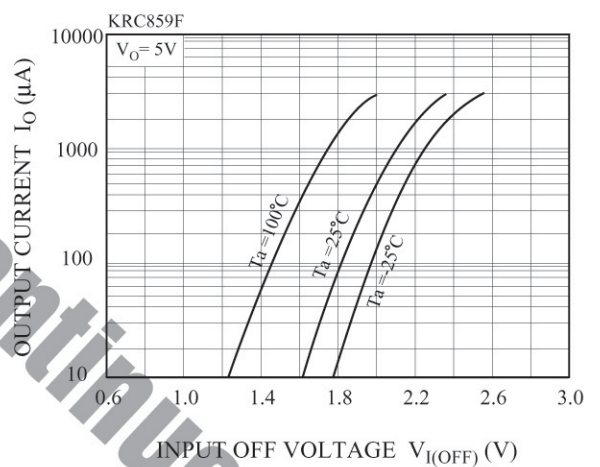
$V_{O(ON)} - I_O$



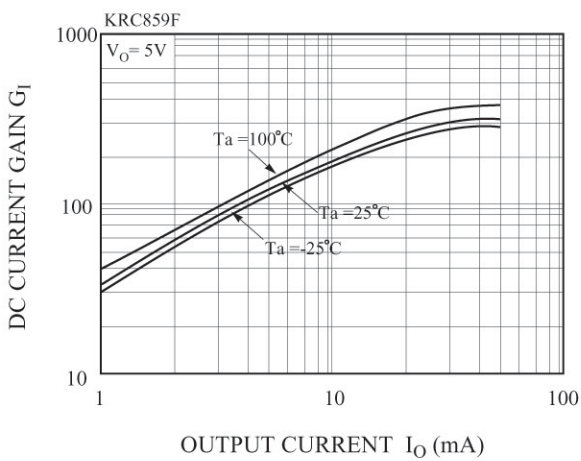
$I_O - V_{I(ON)}$



$I_O - V_{I(OFF)}$



$G_I - I_O$



$V_{O(ON)} - I_O$

