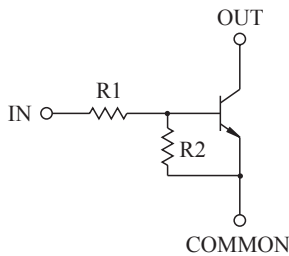


**HIGH CURRENT SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.**

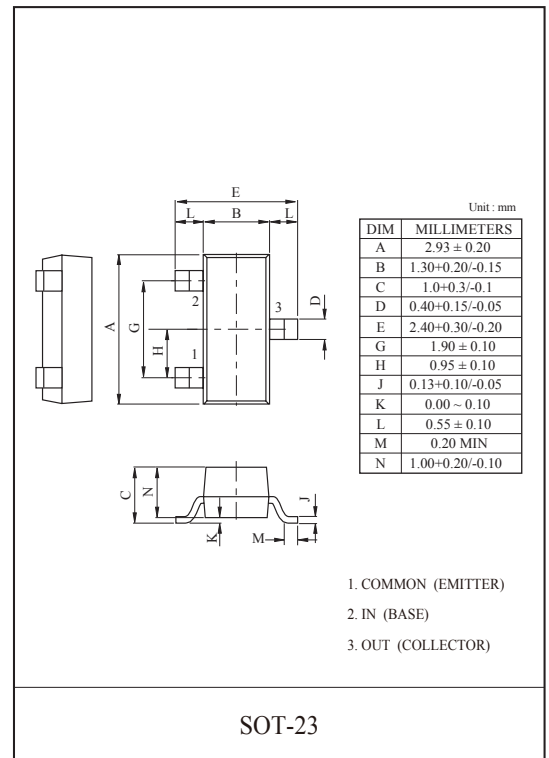
### FEATURES

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Output Current : 800mA.
- Suffix U : Qualified to AEC-Q101  
ex) KRC243S-RTK/HU

### EQUIVALENT CIRCUIT



| TYPE NO. | R1(kΩ) | R2(kΩ) |
|----------|--------|--------|
| KRC241S  | 1      | 1      |
| KRC242S  | 2.2    | 2.2    |
| KRC243S  | 4.7    | 4.7    |
| KRC244S  | 10     | 10     |
| KRC245S  | 1      | 10     |
| KRC246S  | 2.2    | 10     |



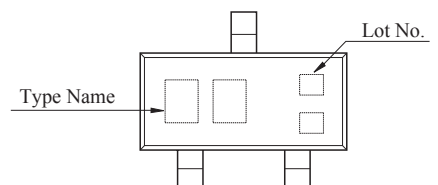
### MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC            | SYMBOL    | RATING    | UNIT |
|---------------------------|-----------|-----------|------|
| Output Voltage            | $V_O$     | 50        | V    |
| Input Voltage             | $V_I$     | 10, -10   | V    |
|                           |           | 12, -10   |      |
|                           |           | 20, -10   |      |
|                           |           | 30, -10   |      |
|                           |           | 10, -5    |      |
|                           |           | 12, -6    |      |
| Output Current            | $I_O$     | 800       | mA   |
| Power Dissipation         | $P_D$     | 200       | mW   |
| Junction Temperature      | $T_j$     | -55~150   | °C   |
| Storage Temperature Range | $T_{stg}$ | -55 ~ 150 | °C   |

### MARK SPEC

| TYPE | KRC241S | KRC242S | KRC243S | KRC244S | KRC245S | KRC246S |
|------|---------|---------|---------|---------|---------|---------|
| MARK | NQ      | NR      | NS      | NT      | NU      | NV      |

### Marking



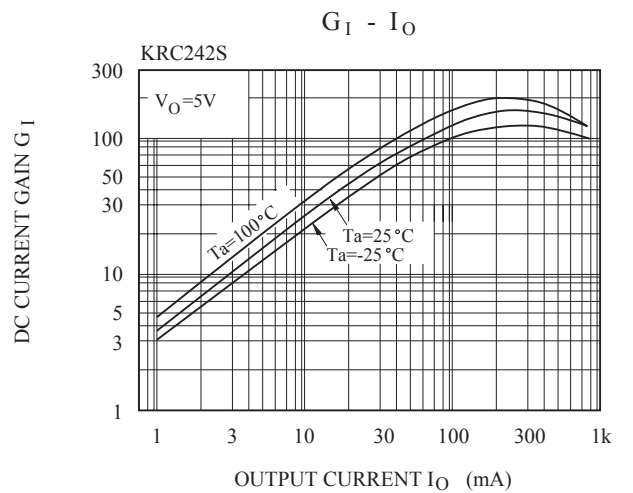
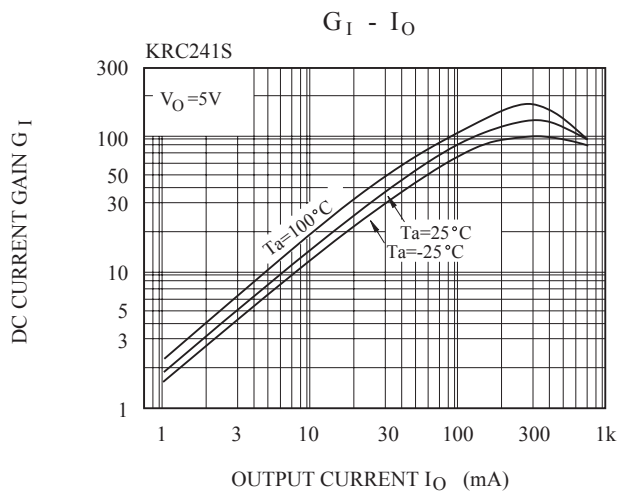
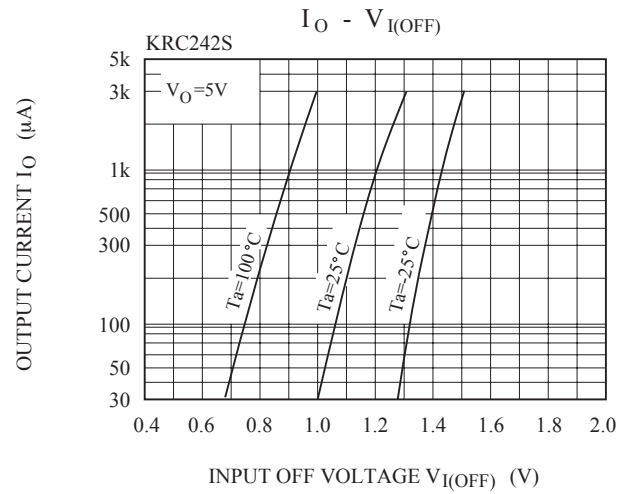
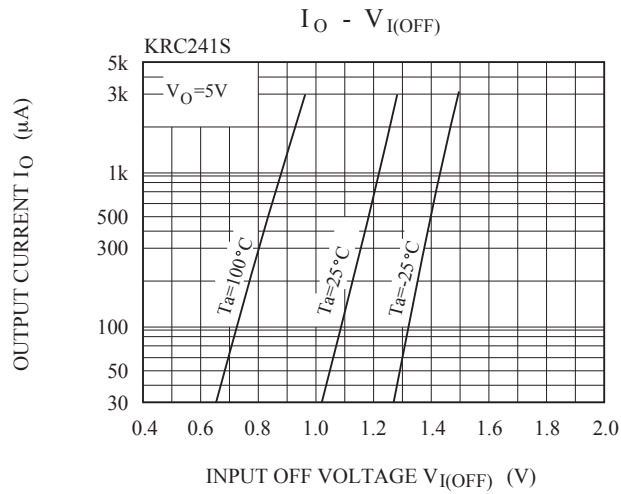
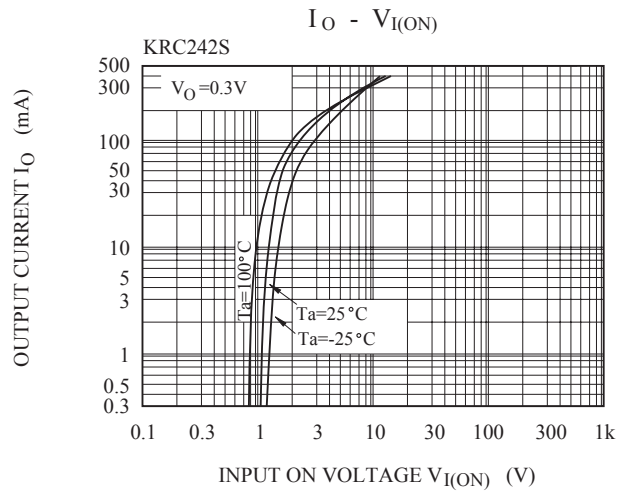
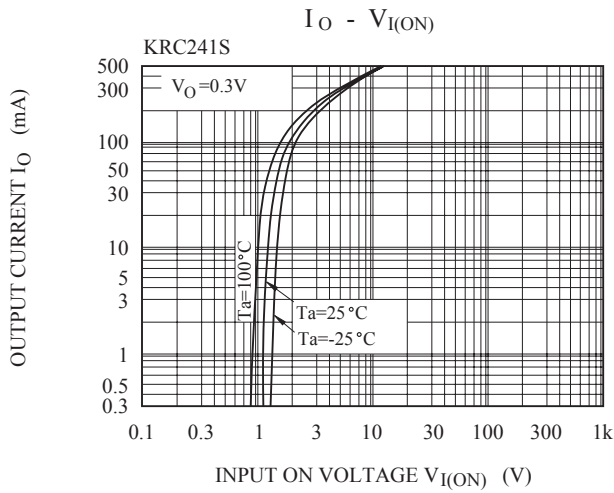
# KRC241S~KRC246S

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

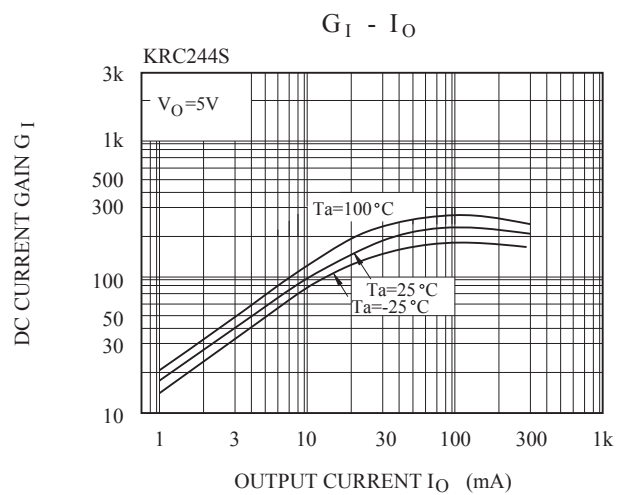
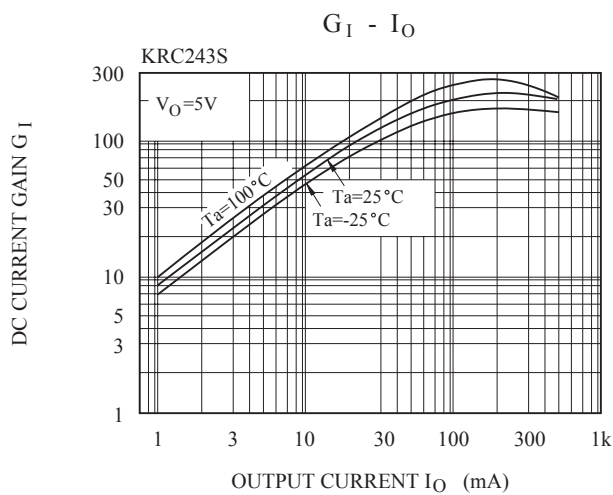
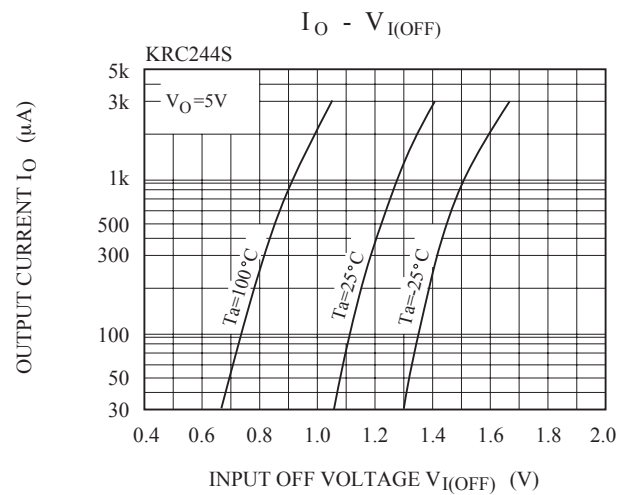
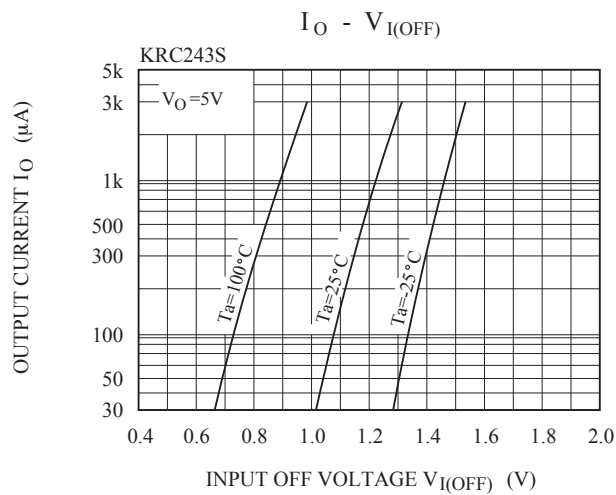
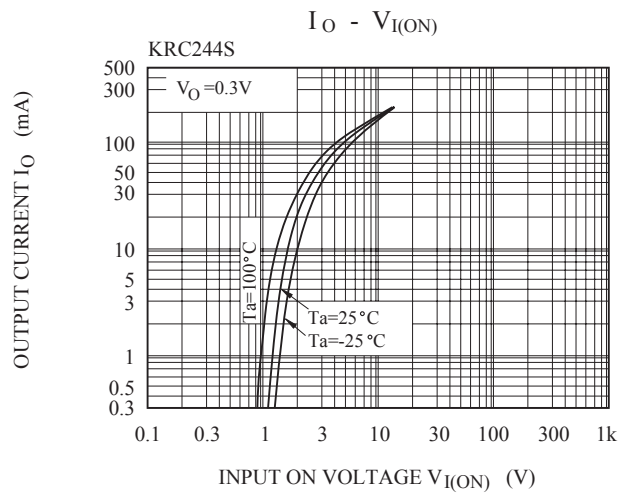
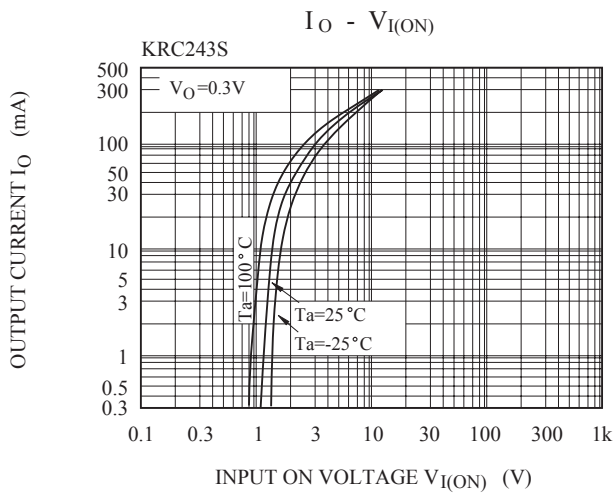
| CHARACTERISTIC         |              | SYMBOL       | TEST CONDITION               | MIN. | TYP. | MAX. | UNIT      |
|------------------------|--------------|--------------|------------------------------|------|------|------|-----------|
| Output Cut-off Current | KRC241S~246S | $I_{O(OFF)}$ | $V_O=30V, V_I=0$             | -    | -    | 10   | $\mu A$   |
| DC Current Gain        | KRC241S      | $G_I$        | $V_O=5V, I_O=50mA$           | 33   | -    | -    |           |
|                        | KRC242S      |              |                              | 39   | -    | -    |           |
|                        | KRC243S      |              |                              | 47   | -    | -    |           |
|                        | KRC244S      |              |                              | 56   | -    | -    |           |
|                        | KRC245S      |              |                              | 56   | -    | -    |           |
|                        | KRC246S      |              |                              | 56   | -    | -    |           |
| Output Voltage         | KRC241S~246S | $V_{O(ON)}$  | $I_O=50mA, I_I=2.5mA$        | -    | 0.1  | 0.3  | V         |
| Input Voltage (ON)     | KRC241S      | $V_{I(ON)}$  | $V_O=0.3V, I_O=20mA$         | -    | -    | 3.0  | V         |
|                        | KRC242S      |              |                              | -    | -    | 3.0  |           |
|                        | KRC243S      |              |                              | -    | -    | 3.0  |           |
|                        | KRC244S      |              |                              | -    | -    | 3.0  |           |
|                        | KRC245S      |              |                              | -    | -    | 3.0  |           |
|                        | KRC246S      |              |                              | -    | -    | 2.0  |           |
| Input Voltage (OFF)    | KRC241S~244S | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$          | 0.5  | -    | -    | V         |
|                        | KRC245S~246S |              |                              | 0.3  | -    | -    |           |
| Transition Frequency   | KRC241S~246S | $f_T^*$      | $V_O=10V, I_O=5mA, f=100MHz$ | -    | 200  | -    | MHz       |
| Input Current          | KRC241S      | $I_I$        | $V_I=5V$                     | -    | -    | 7.2  | mA        |
|                        | KRC242S      |              |                              | -    | -    | 3.8  |           |
|                        | KRC243S      |              |                              | -    | -    | 1.8  |           |
|                        | KRC244S      |              |                              | -    | -    | 0.88 |           |
|                        | KRC245S      |              |                              | -    | -    | 7.2  |           |
|                        | KRC246S      |              |                              | -    | -    | 3.6  |           |
| Input Resistor         | KRC241S      | R1           | -                            | 0.7  | 1    | 1.3  | $k\Omega$ |
|                        | KRC242S      |              |                              | 1.54 | 2.2  | 2.86 |           |
|                        | KRC243S      |              |                              | 3.29 | 4.7  | 6.11 |           |
|                        | KRC244S      |              |                              | 7    | 10   | 13   |           |
|                        | KRC245S      |              |                              | 0.7  | 1    | 1.3  |           |
|                        | KRC246S      |              |                              | 1.54 | 2.2  | 2.86 |           |
| Resistor Ratio         | KRC241S~244S | R2/R1        | -                            | 0.8  | 1.0  | 1.2  |           |
|                        | KRC245S      |              |                              | 8    | 10   | 12   |           |
|                        | KRC246S      |              |                              | 3.6  | 4.5  | 5.5  |           |

Note : \* Characteristic of Transistor Only.

# KRC241S~KRC246S



# KRC241S~KRC246S



# KRC241S~KRC246S

