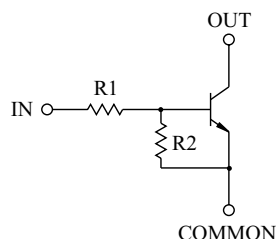


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

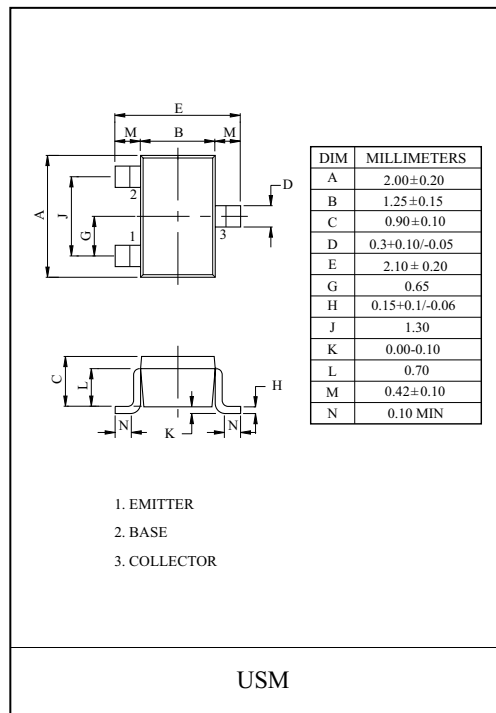
FEATURES

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

EQUIVALENT CIRCUIT



| TYPE NO. | R1(k Ω) | R2(k Ω) |
|----------|---------|---------|
| KRC416 | 1 | 10 |
| KRC417 | 2.2 | 2.2 |
| KRC418 | 2.2 | 10 |
| KRC419 | 4.7 | 10 |
| KRC420 | 10 | 4.7 |
| KRC421 | 47 | 10 |
| KRC422 | 100 | 100 |

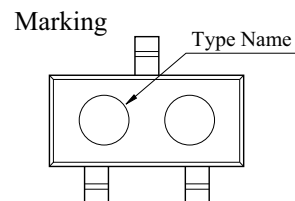


MAXIMUM RATING (Ta=25℃)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---------------------------|------------|-----------|---------|------|
| Output Voltage | KRC416~422 | V_O | 50 | V |
| Input Voltage | KRC416 | V_I | 10, -5 | V |
| | KRC417 | | 12, -10 | |
| | KRC418 | | 12, -5 | |
| | KRC419 | | 20, -7 | |
| | KRC420 | | 30, -10 | |
| | KRC421 | | 40, -15 | |
| KRC422 | 40, -10 | | | |
| Output Current | KRC416~422 | I_O | 100 | mA |
| Power Dissipation | | P_D | 100 | mW |
| Junction Temperature | | T_j | 150 | ℃ |
| Storage Temperature Range | | T_{stg} | -55~150 | ℃ |

MARK SPEC

| TYPE | KRC416 | KRC417 | KRC418 | KRC419 | KRC420 | KRC421 | KRC422 |
|------|--------|--------|--------|--------|--------|--------|--------|
| MARK | N2 | N4 | N5 | N6 | N7 | N8 | N9 |



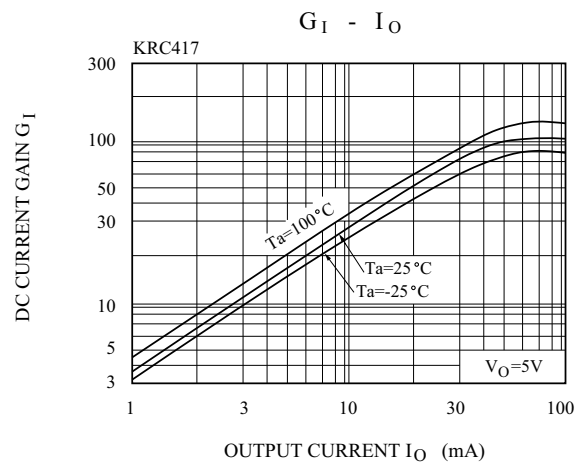
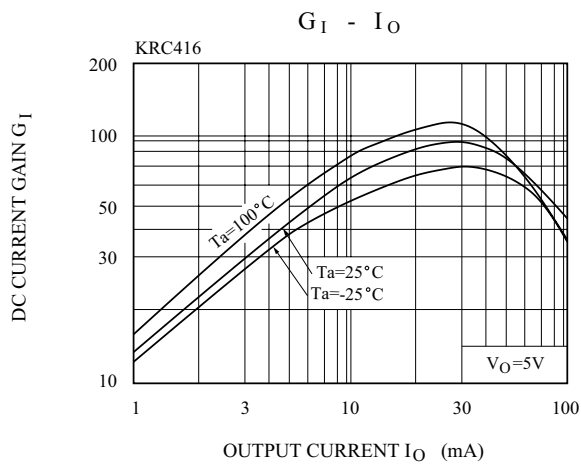
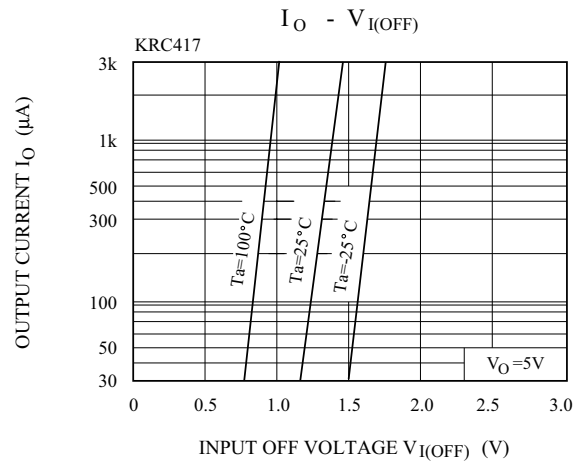
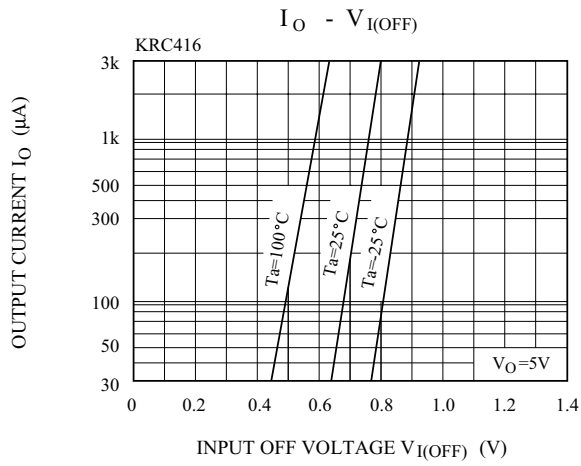
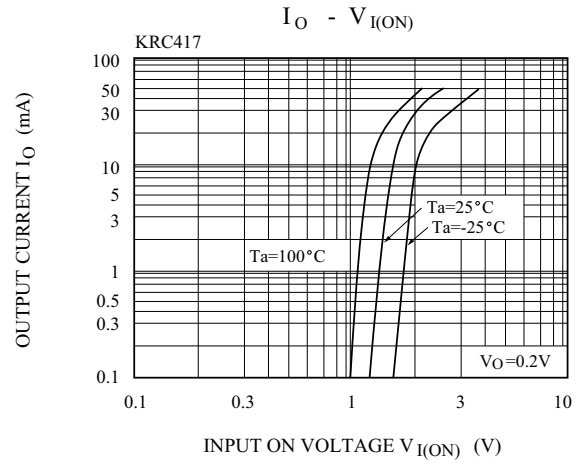
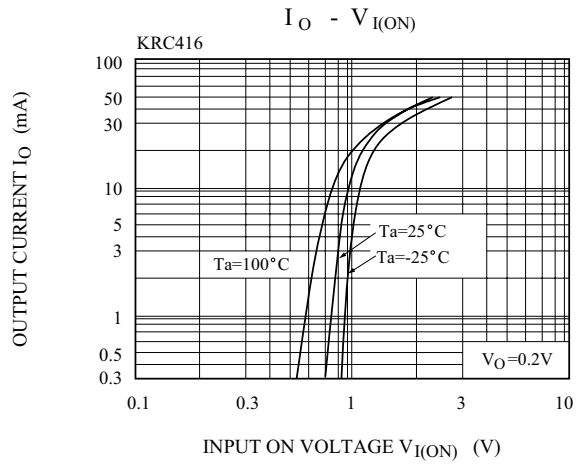
KRC416~KRC422

ELECTRICAL CHARACTERISTICS (Ta=25°C)

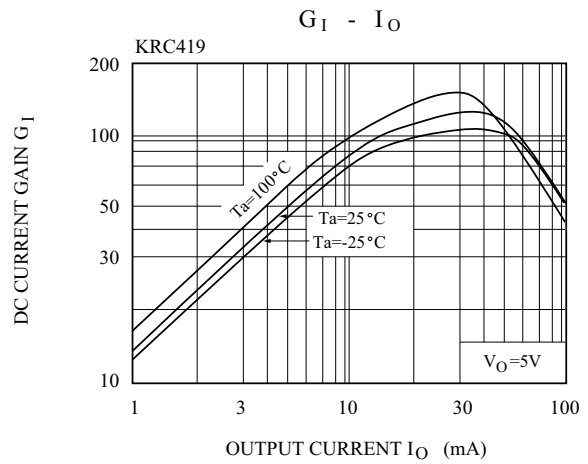
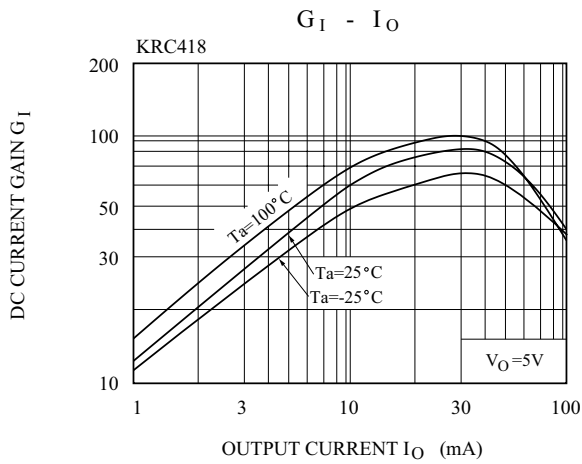
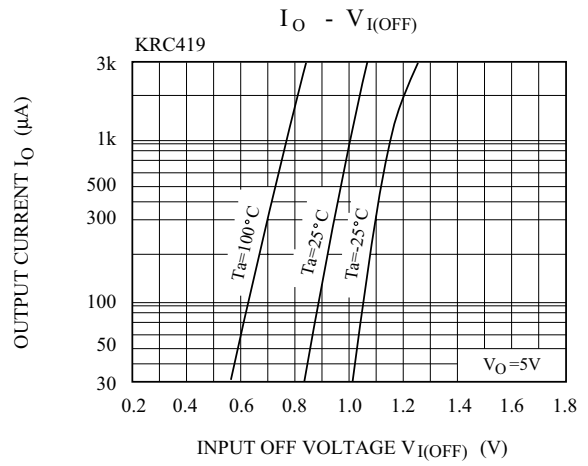
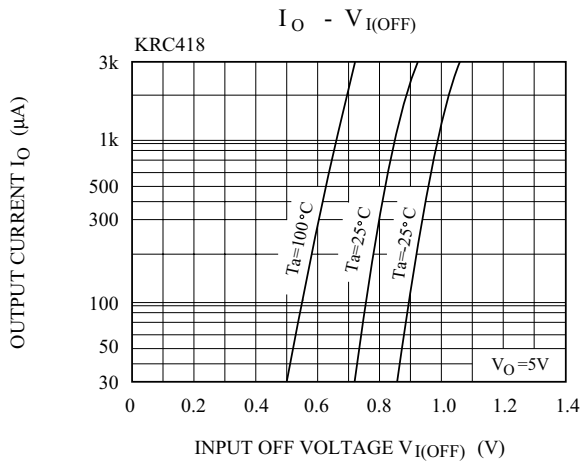
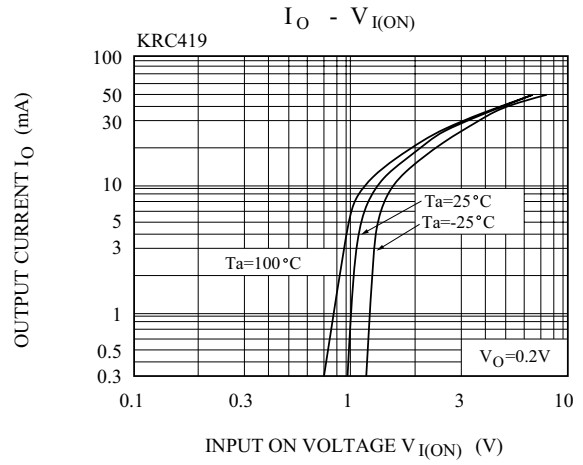
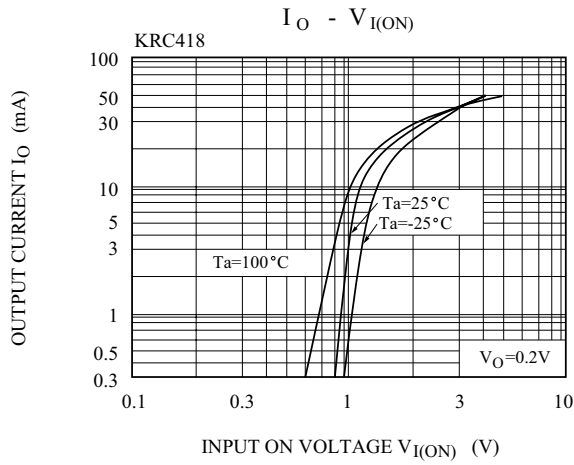
| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------|------------|--------------|---------------------------|------|------|------|------|
| Output Cut-off Current | KRC416~422 | $I_{O(OFF)}$ | $V_O=50V, V_I=0$ | - | - | 500 | nA |
| DC Current Gain | KRC416 | G_I | $V_O=5V, I_O=5mA$ | 33 | - | - | |
| | KRC417 | | $V_O=5V, I_O=20mA$ | 20 | - | - | |
| | KRC418 | | $V_O=5V, I_O=10mA$ | 33 | - | - | |
| | KRC419 | | $V_O=5V, I_O=10mA$ | 30 | - | - | |
| | KRC420 | | $V_O=5V, I_O=10mA$ | 24 | - | - | |
| | KRC421 | | $V_O=5V, I_O=5mA$ | 33 | - | - | |
| | KRC422 | | $V_O=5V, I_O=5mA$ | 62 | - | - | |
| Output Voltage | KRC416 | $V_{O(ON)}$ | $I_O=10mA, I_I=0.5mA$ | - | - | 0.3 | V |
| | KRC417 | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC418 | | $I_O=10mA, I_I=0.5mA$ | - | - | 0.3 | |
| | KRC419 | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC420 | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC421 | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC422 | | $I_O=5mA, I_I=0.25mA$ | - | 0.1 | 0.3 | |
| Input Voltage (ON) | KRC416 | $V_{I(ON)}$ | $V_O=0.3V, I_O=20mA$ | - | 0.98 | 3 | V |
| | KRC417 | | $V_O=0.3V, I_O=20mA$ | - | 1.83 | 3 | |
| | KRC418 | | $V_O=0.3V, I_O=20mA$ | - | 1.22 | 3 | |
| | KRC419 | | $V_O=0.3V, I_O=20mA$ | - | 1.76 | 2.5 | |
| | KRC420 | | $V_O=0.3V, I_O=2mA$ | - | 2 | 3 | |
| | KRC421 | | $V_O=0.3V, I_O=2mA$ | - | 3.9 | 5 | |
| | KRC422 | | $V_O=0.3V, I_O=1mA$ | - | 1.64 | 3 | |
| Input Voltage (OFF) | KRC416 | $V_{I(OFF)}$ | $V_{CC}=5V, I_O=100\mu A$ | 0.3 | 0.63 | - | V |
| | KRC417 | | | 0.5 | 1.15 | - | |
| | KRC418 | | | 0.3 | 0.67 | - | |
| | KRC419 | | | 0.3 | 0.82 | - | |
| | KRC420 | | | 0.8 | 1.68 | - | |
| | KRC421 | | | 1 | 3.09 | - | |
| | KRC422 | | | 0.5 | 1.17 | - | |
| Transition Frequency | KRC416~422 | f_T^* | $V_O=10V, I_O=5mA$ | - | 250 | - | MHz |
| Input Current | KRC416 | I_I | $V_I=5V$ | - | - | 7.2 | mA |
| | KRC417 | | | - | - | 3.8 | |
| | KRC418 | | | - | - | 3.8 | |
| | KRC419 | | | - | - | 1.8 | |
| | KRC420 | | | - | - | 0.88 | |
| | KRC421 | | | - | - | 0.16 | |
| | KRC422 | | | - | - | 0.15 | |

Note : * Characteristic of Transistor Only.

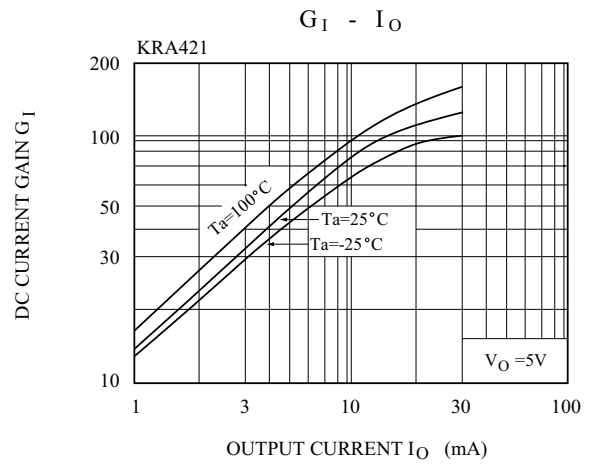
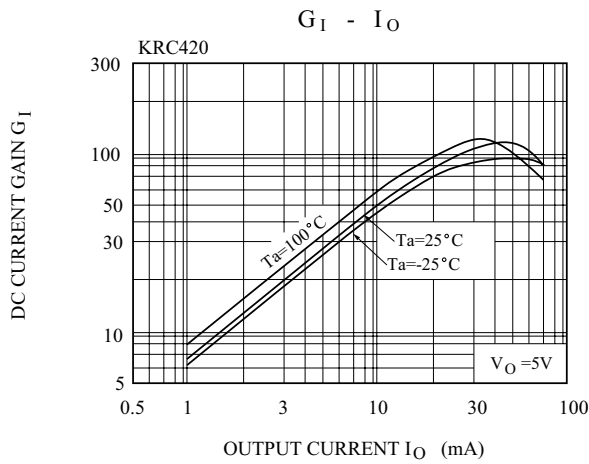
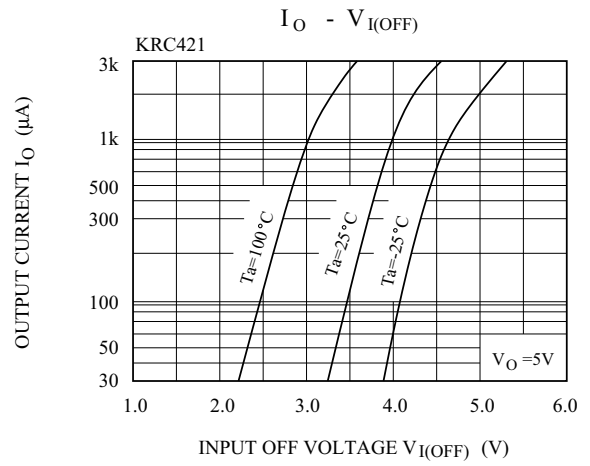
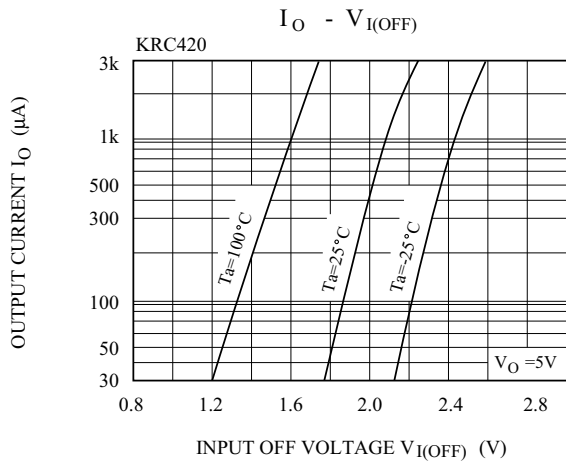
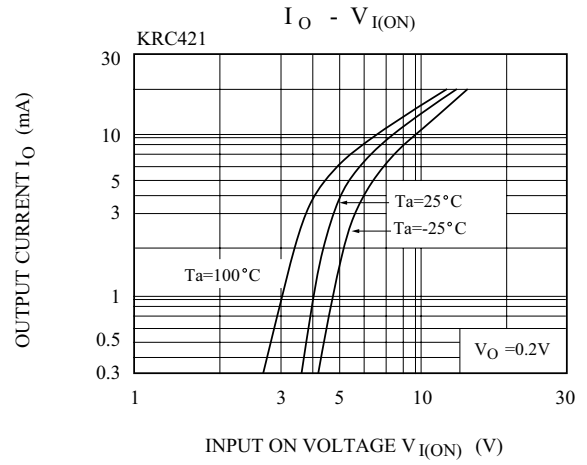
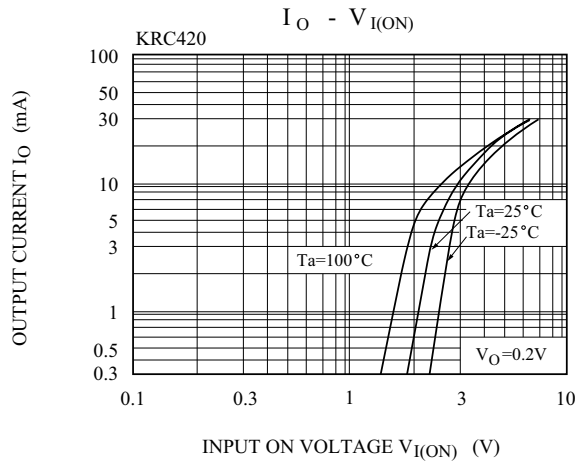
KRC416~KRC422



KRC416~KRC422



KRC416~KRC422



KRC416~KRC422

