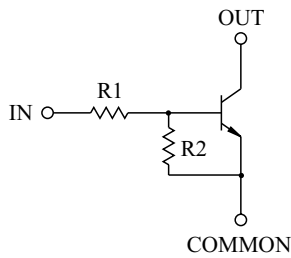


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

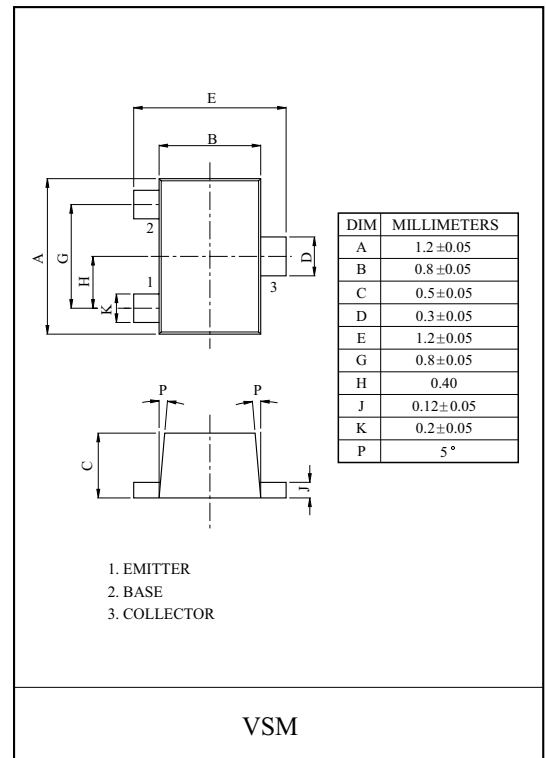
FEATURES

- 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) |
|----------|-----------------|-----------------|
| KRC416V | 1 | 10 |
| KRC417V | 2.2 | 2.2 |
| KRC418V | 2.2 | 10 |
| KRC419V | 4.7 | 10 |
| KRC420V | 10 | 4.7 |
| KRC421V | 47 | 10 |
| KRC422V | 100 | 100 |



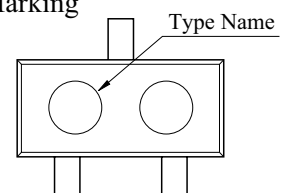
MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---------------------------|--------------|-----------|-----------|------|
| Output Voltage | KRC416V~422V | V_O | 50 | V |
| Input Voltage | KRC416V | V_I | 10, -5 | V |
| | KRC417V | | 12, -10 | |
| | KRC418V | | 12, -5 | |
| | KRC419V | | 20, -7 | |
| | KRC420V | | 30, -10 | |
| | KRC421V | | 40, -15 | |
| | KRC422V | | 40, -10 | |
| Output Current | KRC416V~422V | I_O | 100 | mA |
| Power Dissipation | | P_D | 100 | mW |
| Junction Temperature | | T_j | 150 | °C |
| Storage Temperature Range | | T_{stg} | -55 ~ 150 | °C |

MARK SPEC

| TYPE | KRC416V | KRC417V | KRC418V | KRC419V | KRC420V | KRC421V | KRC422V |
|------|---------|---------|---------|---------|---------|---------|---------|
| MARK | N2 | N4 | N5 | N6 | N7 | N8 | N9 |

Marking



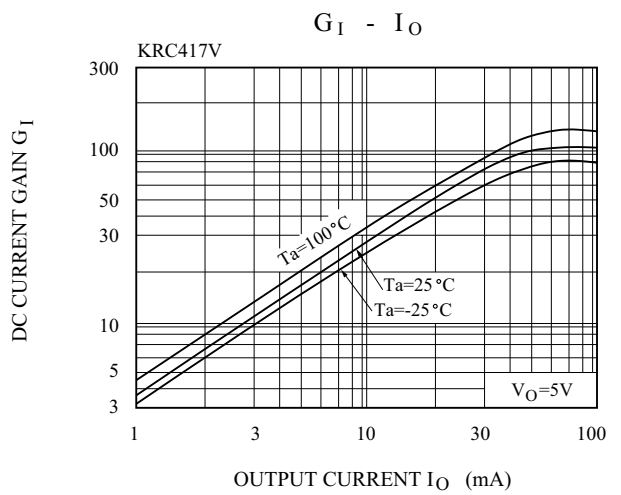
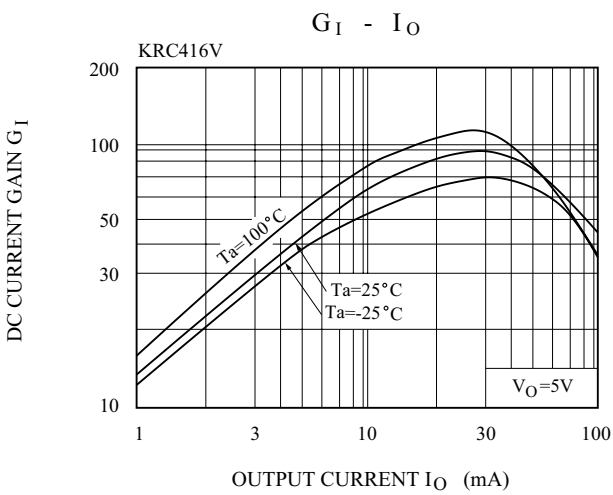
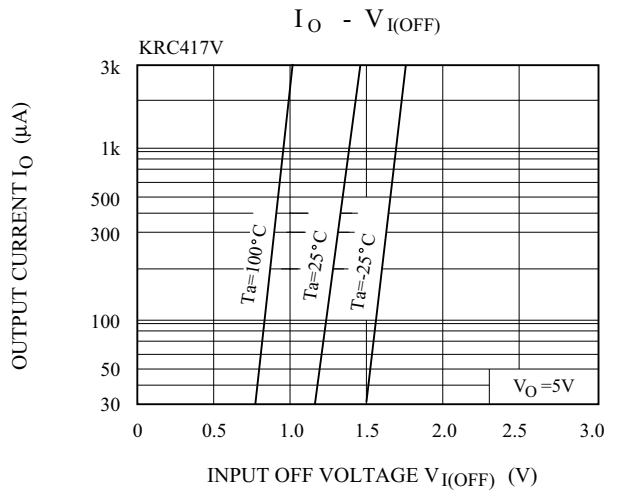
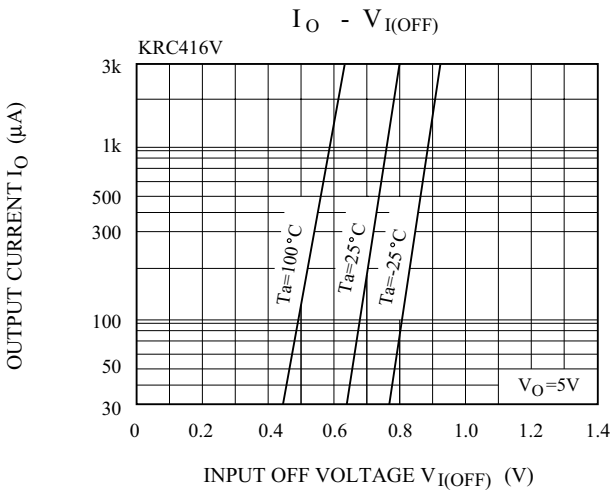
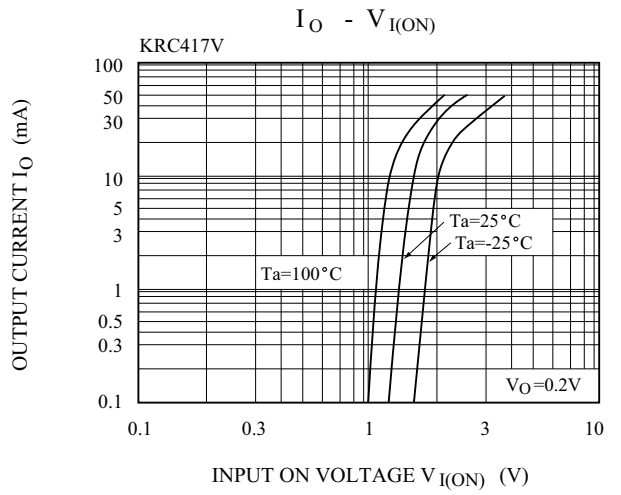
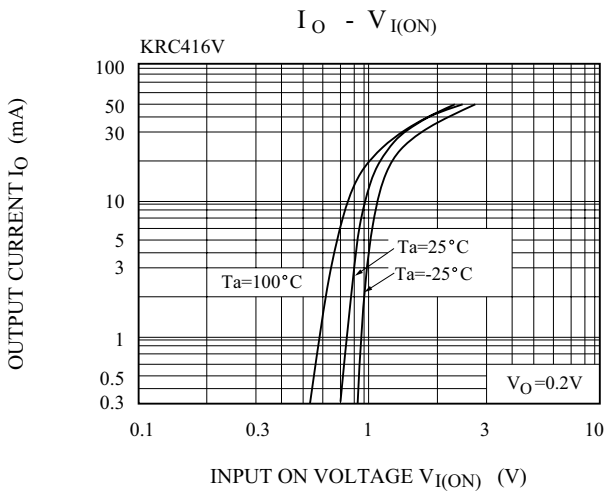
KRC416V~KRC422V

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

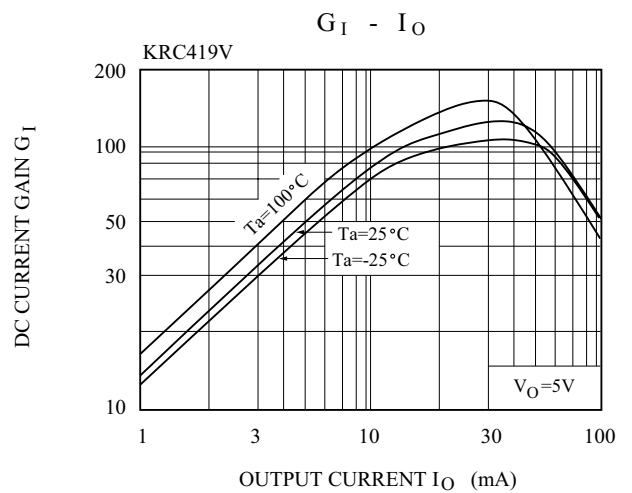
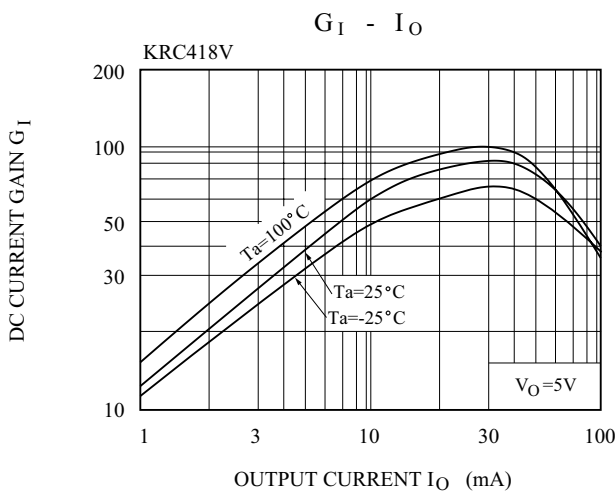
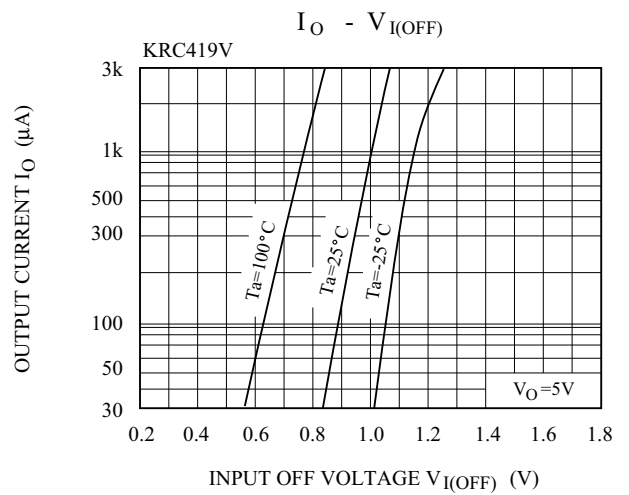
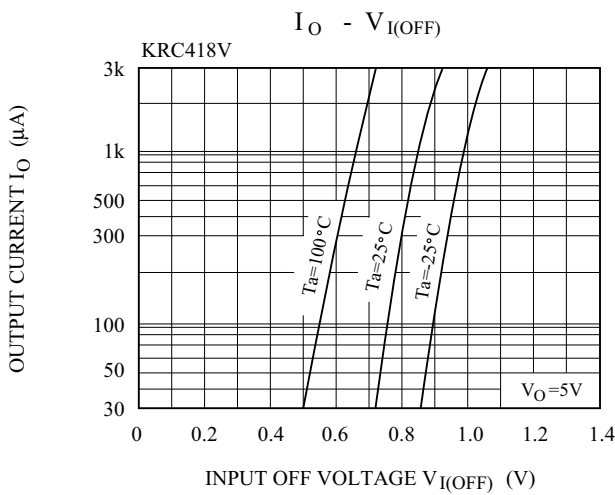
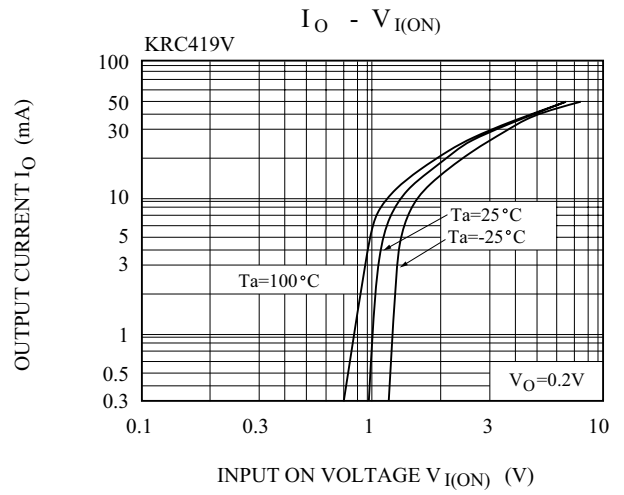
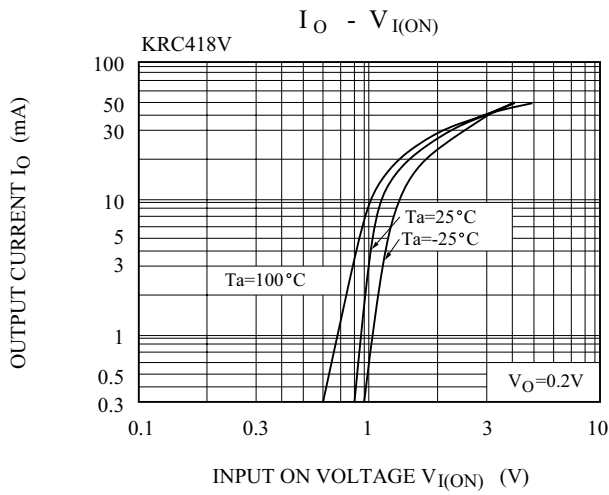
| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------|--------------|--------------|---------------------------|------|------|------|------|
| Output Cut-off Current | KRC416V~422V | $I_{O(OFF)}$ | $V_O=50V, V_I=0$ | - | - | 500 | nA |
| DC Current Gain | KRC416V | G_I | $V_O=5V, I_O=5mA$ | 33 | - | - | |
| | KRC417V | | $V_O=5V, I_O=20mA$ | 20 | - | - | |
| | KRC418V | | $V_O=5V, I_O=10mA$ | 33 | - | - | |
| | KRC419V | | $V_O=5V, I_O=10mA$ | 30 | - | - | |
| | KRC420V | | $V_O=5V, I_O=10mA$ | 24 | - | - | |
| | KRC421V | | $V_O=5V, I_O=5mA$ | 33 | - | - | |
| | KRC422V | | $V_O=5V, I_O=5mA$ | 62 | - | - | |
| Output Voltage | KRC416V | $V_{O(ON)}$ | $I_O=10mA, I_I=0.5mA$ | - | - | 0.3 | V |
| | KRC417V | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC418V | | $I_O=10mA, I_I=0.5mA$ | - | - | 0.3 | |
| | KRC419V | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC420V | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC421V | | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | |
| | KRC422V | | $I_O=5mA, I_I=0.25mA$ | - | 0.1 | 0.3 | |
| Input Voltage (ON) | KRC416V | $V_{I(ON)}$ | $V_O=0.3V, I_O=20mA$ | - | 0.98 | 3 | V |
| | KRC417V | | $V_O=0.3V, I_O=20mA$ | - | 1.83 | 3 | |
| | KRC418V | | $V_O=0.3V, I_O=20mA$ | - | 1.22 | 3 | |
| | KRC419V | | $V_O=0.3V, I_O=20mA$ | - | 1.76 | 2.5 | |
| | KRC420V | | $V_O=0.3V, I_O=2mA$ | - | 2 | 3 | |
| | KRC421V | | $V_O=0.3V, I_O=2mA$ | - | 3.9 | 5 | |
| | KRC422V | | $V_O=0.3V, I_O=1mA$ | - | 1.64 | 3 | |
| Input Voltage (OFF) | KRC416V | $V_{I(OFF)}$ | $V_{CC}=5V, I_O=100\mu A$ | 0.3 | 0.63 | - | V |
| | KRC417V | | | 0.5 | 1.15 | - | |
| | KRC418V | | | 0.3 | 0.67 | - | |
| | KRC419V | | | 0.3 | 0.82 | - | |
| | KRC420V | | | 0.8 | 1.68 | - | |
| | KRC421V | | | 1 | 3.09 | - | |
| | KRC422V | | | 0.5 | 1.17 | - | |
| Transition Frequency | KRC416V~422V | f_T^* | $V_O=10V, I_O=5mA$ | - | 250 | - | MHz |
| Input Current | KRC416V | I_I | $V_I=5V$ | - | - | 7.2 | mA |
| | KRC417V | | | - | - | 3.8 | |
| | KRC418V | | | - | - | 3.8 | |
| | KRC419V | | | - | - | 1.8 | |
| | KRC420V | | | - | - | 0.88 | |
| | KRC421V | | | - | - | 0.16 | |
| | KRC422V | | | - | - | 0.15 | |

Note : * Characteristic of Transistor Only.

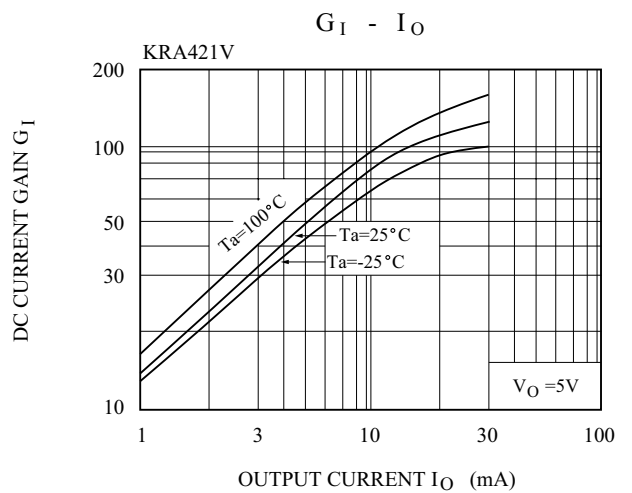
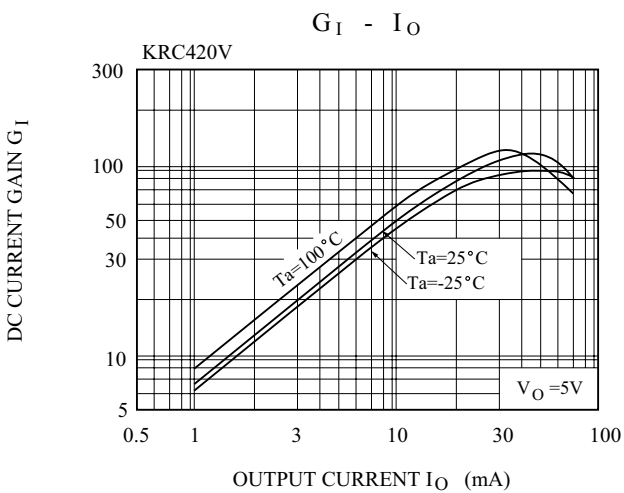
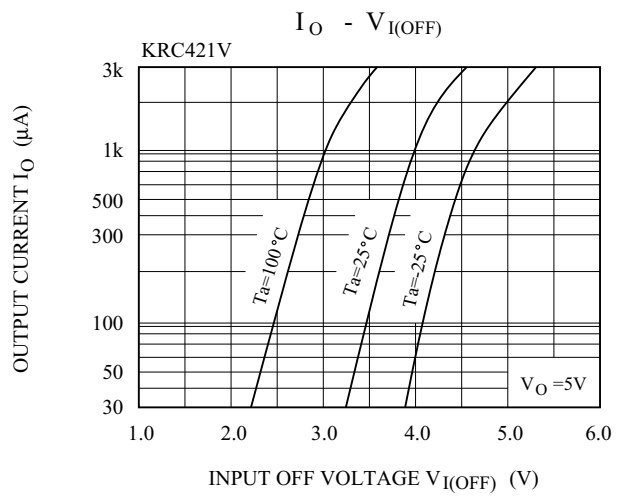
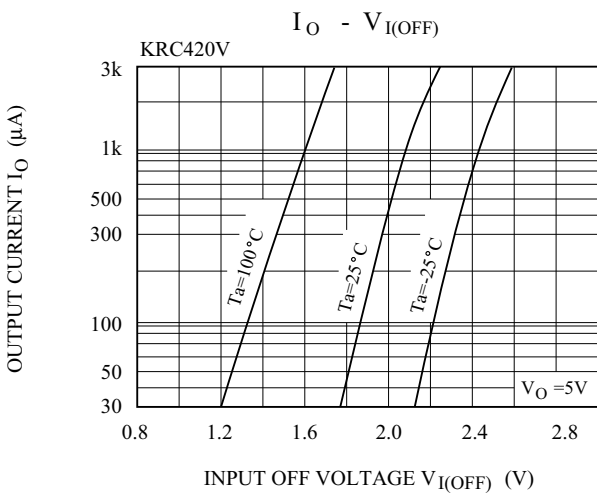
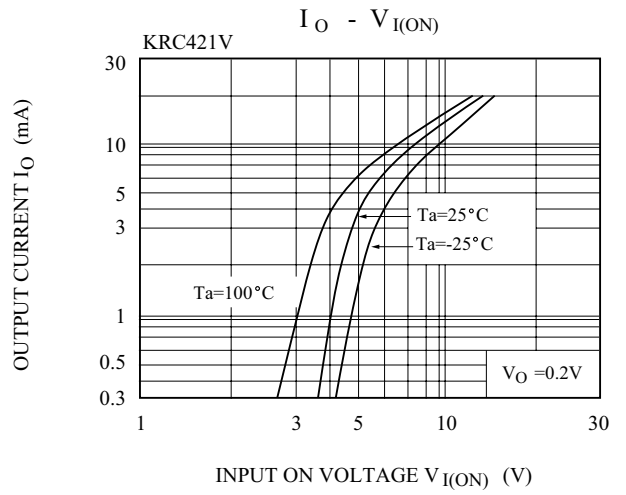
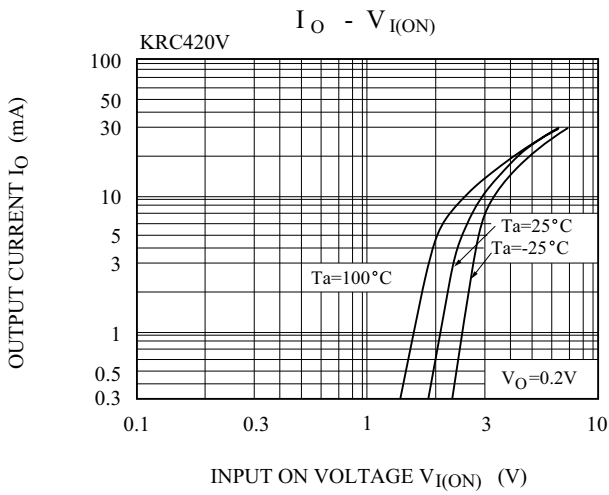
KRC416V~KRC422V



KRC416V~KRC422V



KRC416V~KRC422V



KRC416V~KRC422V

