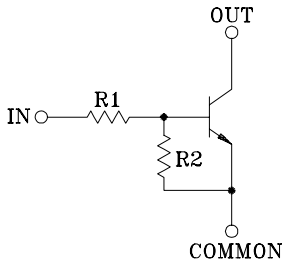


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

FEATURES

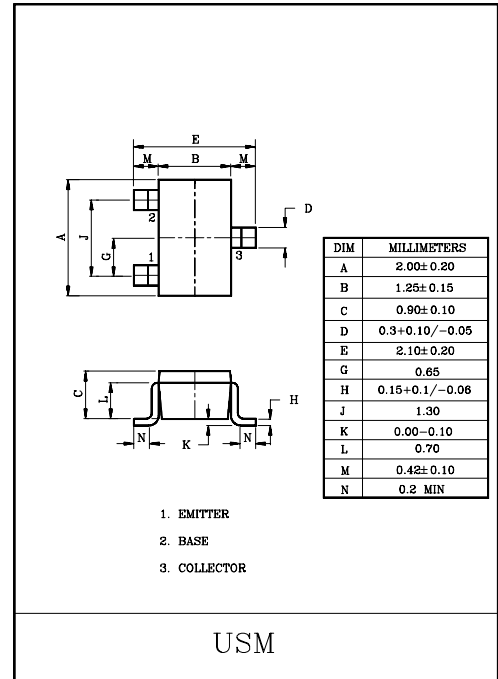
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

| TYPE NO. | R1(kΩ) | R2(kΩ) |
|----------|--------|--------|
| 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 |

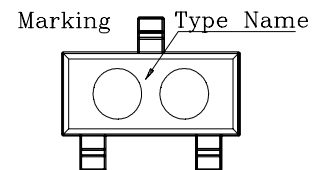


MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---------------------------|------------|---------|------|
| Output Voltage | KRC416~422 | 50 | V |
| | KRC416 | 10, -5 | |
| | KRC417 | 12, -10 | |
| | KRC418 | 12, -5 | |
| | KRC419 | 20, -7 | |
| | KRC420 | 30, -10 | |
| | KRC421 | 40, -15 | |
| Input Voltage | KRC422 | 40, -10 | V |
| Output Current | | 100 | mA |
| Power Dissipation | | 100 | mW |
| Junction Temperature | | 150 | °C |
| Storage Temperature Range | KRC416~422 | -55~150 | °C |

MARK SPEC

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



KRC416~KRC422

ELECTRICAL CHARACTERISTICS (T_a=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 =100μA | 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