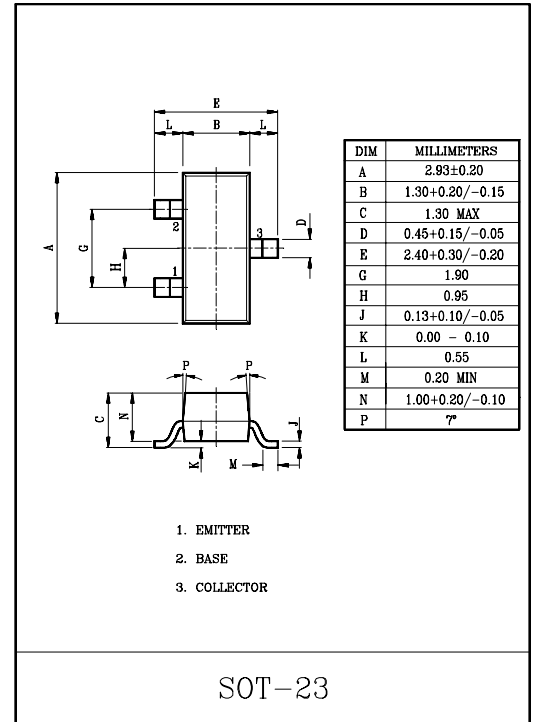
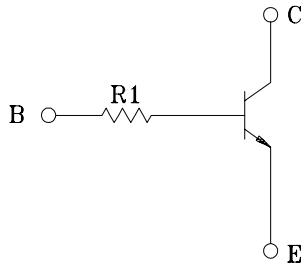


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

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

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---------------------------|------------------|--------|------|
| Collector-Base Voltage | V _{CB0} | 50 | V |
| Collector-Emitter Voltage | V _{CEO} | 50 | V |
| Emitter-Base Voltage | V _{EBO} | 5 | V |
| Collector Current | I _C | 100 | mA |

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|------------------|-----------|------|
| Collector Power Dissipation | P _C | 200 | mW |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature Range | T _{stg} | -55 ~ 150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

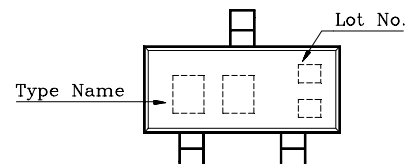
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT | |
|--------------------------------------|----------------------|---|------|------|------|------|----|
| Collector Cut-off Current | I _{CBO} | V _{CB} =50V, I _E =0 | - | - | 100 | nA | |
| Emitter Cut-off Current | I _{EBO} | V _{EB} =5V, I _C =0 | - | - | 100 | nA | |
| DC Current Gain | h _{FE} | V _{CE} =5V, I _C =1mA | 120 | - | - | | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C =10mA, I _B =0.5mA | - | 0.1 | 0.3 | V | |
| Transition Frequency | f _T * | V _{CE} =10V, I _C =5mA | - | 250 | - | MHz | |
| Input Resistor | KRC110S | R ₁ | | - | 4.7 | - | kΩ |
| | KRC111S | | | - | 10 | - | |
| | KRC112S | | | - | 100 | - | |
| | KRC113S | | | - | 22 | - | |
| | KRC114S | | | - | 47 | - | |

Note : * Characteristic of Transistor Only

MARK SPEC

| TYPE | KRC110S | KRC111S | KRC112S | KRC113S | KRC114S |
|------|---------|---------|---------|---------|---------|
| MARK | NK | NM | NN | NO | NP |

Marking



KRC110S ~ KRC114S

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT | |
|----------------|--------------|---------|--|------------------|-------|------|------|---|
| Switching Time | Rise Time | KRC110S | V _O =5V V _{IN} =5V R _L =1kΩ | - | 0.025 | - | μS | |
| | | KRC111S | | - | 0.03 | - | | |
| | | KRC112S | | - | 0.3 | - | | |
| | | KRC113S | | - | 0.06 | - | | |
| | | KRC114S | | - | 0.11 | - | | |
| | Storage Time | KRC110S | | t _{stg} | - | 3.0 | | - |
| | | KRC111S | | - | - | 2.0 | | - |
| | | KRC112S | | - | - | 6.0 | | - |
| | | KRC113S | | - | - | 4.0 | | - |
| | | KRC114S | | - | - | 5.0 | | - |
| | Fall Time | KRC110S | | t _f | - | 0.2 | | - |
| | | KRC111S | | - | - | 0.12 | | - |
| | | KRC112S | | - | - | 2.0 | | - |
| | | KRC113S | | - | - | 0.9 | | - |
| | | KRC114S | | - | - | 1.4 | | - |