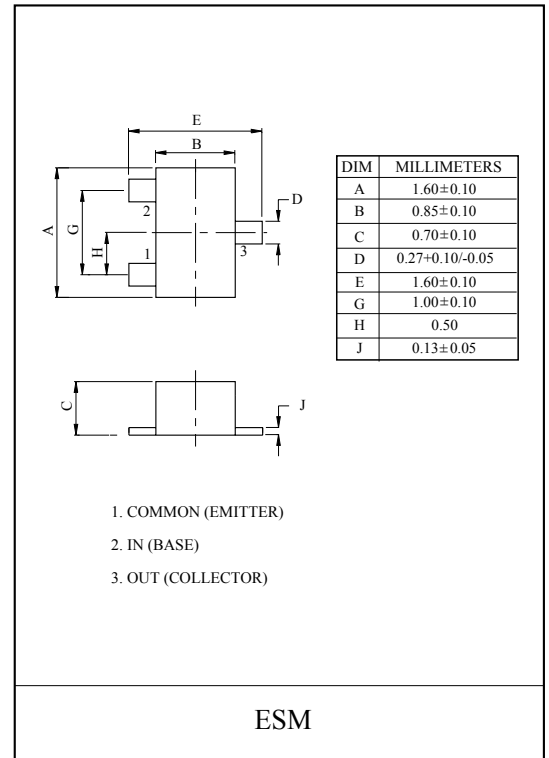
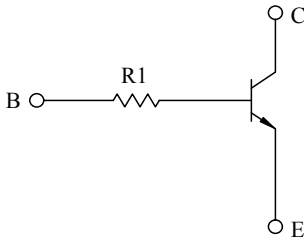


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

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

EQUIVALENT CIRCUIT



MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---------------------------|-----------|--------|------|
| Collector-Base Voltage | V_{CBO} | 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 | 100 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | °C |

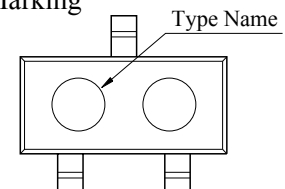
ELECTRICAL CHARACTERISTICS (Ta=25°C)

| 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 | KRC410E | R_1 | | - | 4.7 | - | kΩ |
| | KRC411E | | | - | 10 | - | |
| | KRC412E | | | - | 100 | - | |
| | KRC413E | | | - | 22 | - | |
| | KRC414E | | | - | 47 | - | |

MARK SPEC

| TYPE | KRC410E | KRC411E | KRC412E | KRC413E | KRC414E |
|------|---------|---------|---------|---------|---------|
| MARK | PK | PM | PN | PO | PP |

Marking



KRC410E~KRC414E

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|----------------|--------------|---------|---|------|-------|------|---------|
| Switching Time | Rise Time | KRC410E | $V_O=5V$ $V_{IN}=5V$ $R_L=1k\Omega$ | - | 0.025 | - | μS |
| | | KRC411E | | - | 0.03 | - | |
| | | KRC412E | | - | 0.3 | - | |
| | | KRC413E | | - | 0.06 | - | |
| | | KRC414E | | - | 0.11 | - | |
| | Storage Time | KRC410E | | - | 3.0 | - | |
| | | KRC411E | | - | 2.0 | - | |
| | | KRC412E | | - | 6.0 | - | |
| | | KRC413E | | - | 4.0 | - | |
| | | KRC414E | | - | 5.0 | - | |
| | Fall Time | KRC410E | | - | 0.2 | - | |
| | | KRC411E | | - | 0.12 | - | |
| | | KRC412E | | - | 2.0 | - | |
| | | KRC413E | | - | 0.9 | - | |
| | | KRC414E | | - | 1.4 | - | |