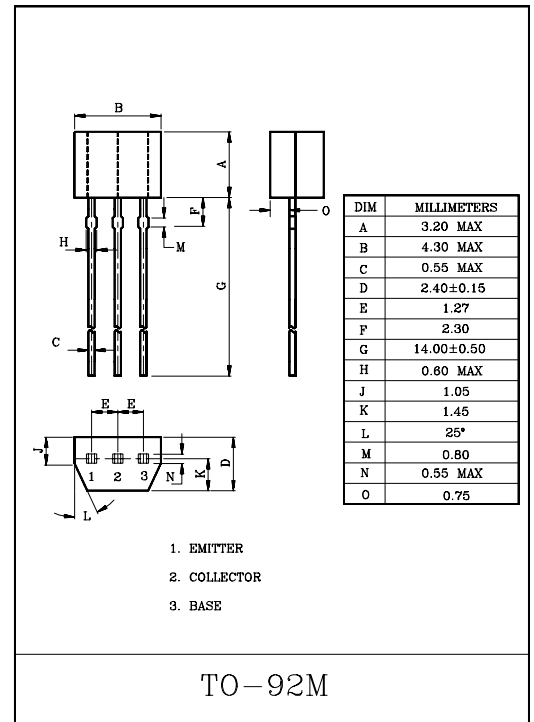
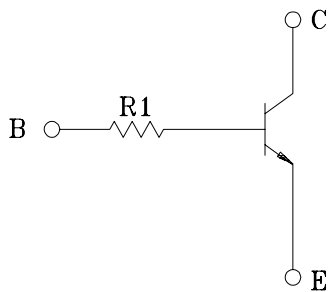


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

**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 <sub>CBO</sub> | 50      | V    |
| Collector-Emitter Voltage   | V <sub>CEO</sub> | 50      | V    |
| Emitter-Base Voltage        | V <sub>EBO</sub> | 10      | V    |
| Collector Current           | I <sub>C</sub>   | 100     | mA   |
| Collector Power Dissipation | P <sub>C</sub>   | 400     | mW   |
| Junction Temperature        | T <sub>j</sub>   | 150     | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -55~150 | °C   |

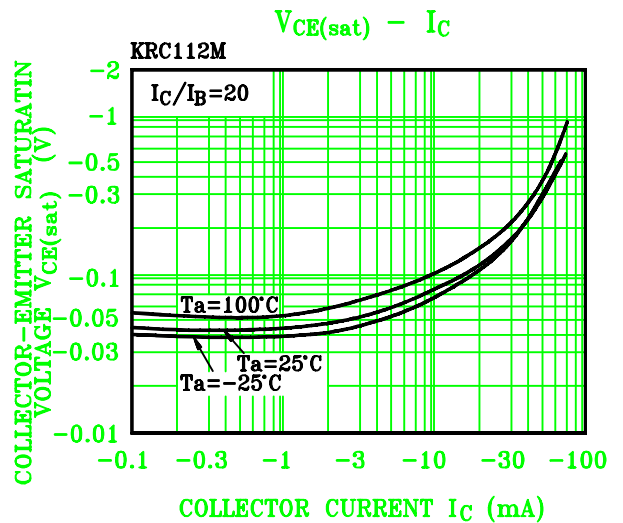
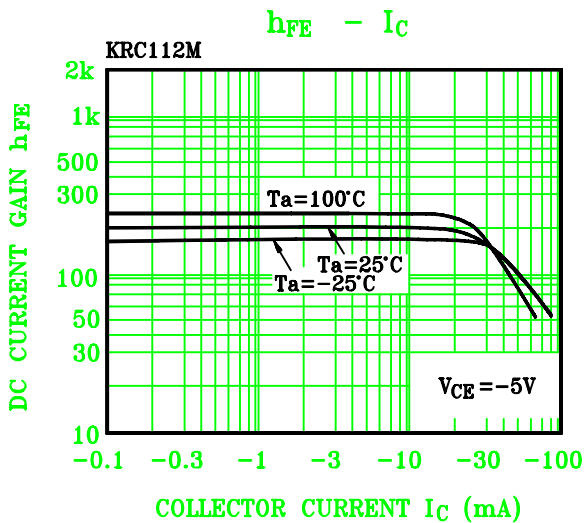
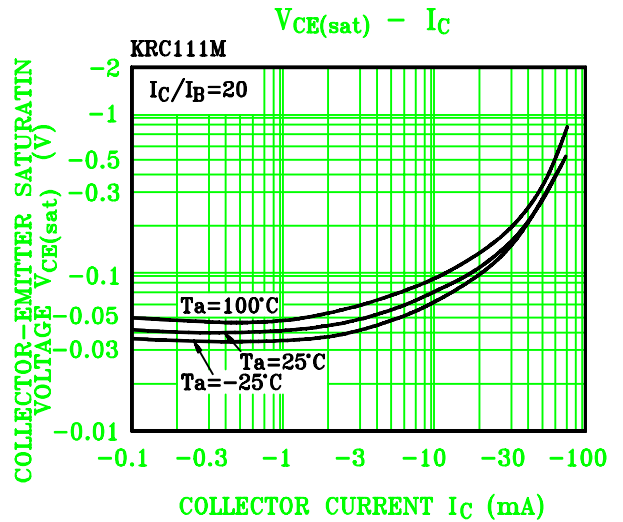
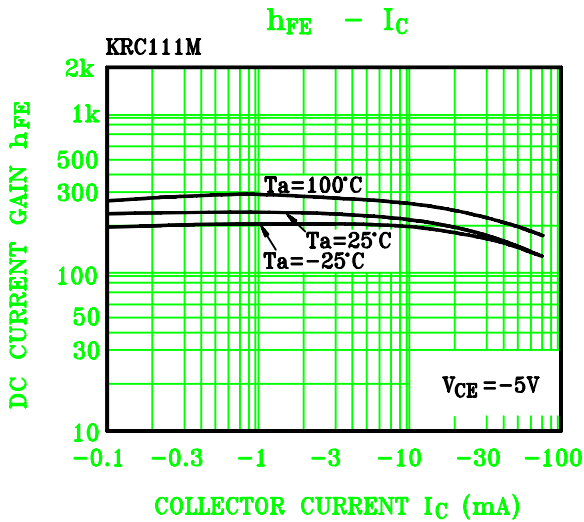
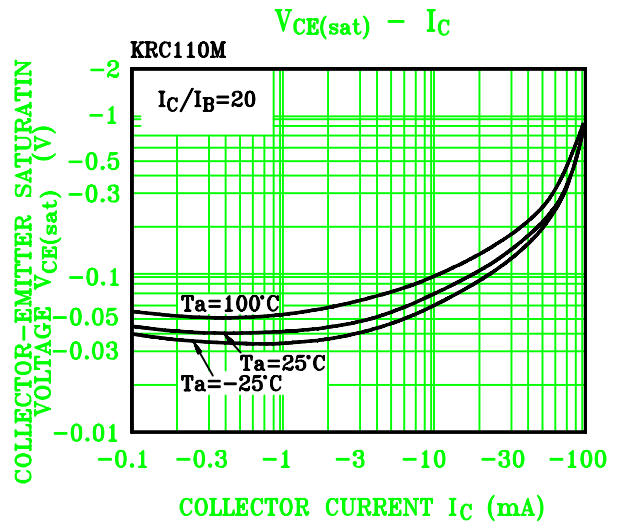
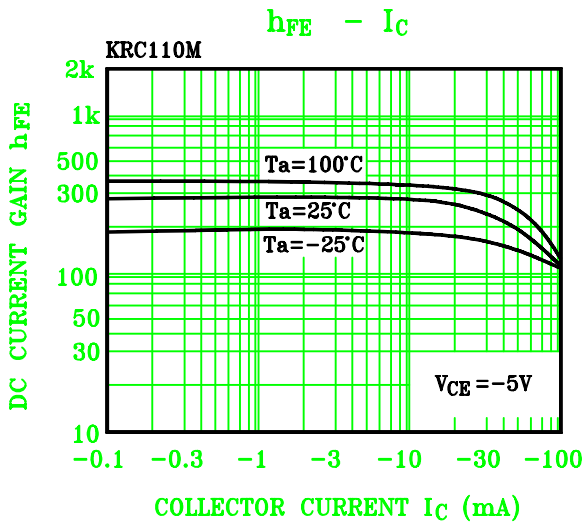
# KRC110M ~ KRC114M

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

| CHARACTERISTIC                       |              | SYMBOL               | TEST CONDITION   | MIN.    | TYP.  | MAX. | UNIT |   |
|--------------------------------------|--------------|----------------------|--|---------|-------|------|------|---|
| Collector Cut-off Current            |              | I <sub>CBO</sub>     | V <sub>CB</sub> =50V, I <sub>B</sub> =0                          | -       | -     | 100  | nA   |   |
| Emitter Cut-off Current              |              | I <sub>EBO</sub>     | V <sub>EB</sub> =5V, I <sub>C</sub> =0                           | -       | -     | 100  | nA   |   |
| DC Current Gain                      |              | h <sub>FE</sub>      | V <sub>CE</sub> =5V, I <sub>C</sub> =1mA                         | 120     | -     | -    |      |   |
| Collector-Emitter Saturation Voltage |              | V <sub>CE(sat)</sub> | I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA                      | -       | 0.1   | 0.3  | V    |   |
| Transition Frequency                 |              | f <sub>T</sub> *     | V <sub>CE</sub> =10V, I <sub>C</sub> =5mA                        | -       | 250   | -    | MHz  |   |
| Input Resistor                       | KRC110M      | R <sub>i</sub>       |  | -       | 4.7   | -    | kΩ   |   |
|                                      | KRC111M      |                      |  | -       | 10    | -    |      |   |
|                                      | KRC112M      |                      |  | -       | 100   | -    |      |   |
|                                      | KRC113M      |                      |  | -       | 22    | -    |      |   |
|                                      | KRC114M      |                      |  | -       | 47    | -    |      |   |
| Switching Time                       | Rise Time    | t <sub>r</sub>       | V <sub>O</sub> =5V<br>V <sub>IN</sub> =5V<br>R <sub>L</sub> =1kΩ | -       | 0.025 | -    | μs   |   |
|                                      |              |                      |  | KRC111M | -     | 0.03 |      | - |
|                                      |              |                      |  | KRC112M | -     | 0.3  |      | - |
|                                      |              |                      |  | KRC113M | -     | 0.06 |      | - |
|                                      |              |                      |  | KRC114M | -     | 0.11 |      | - |
|                                      | Storage Time | t <sub>stg</sub>     |  | KRC110M | -     | 3.0  |      | - |
|                                      |              |                      |  | KRC111M | -     | 2.0  |      | - |
|                                      |              |                      |  | KRC112M | -     | 6.0  |      | - |
|                                      |              |                      |  | KRC113M | -     | 4.0  |      | - |
|                                      |              |                      |  | KRC114M | -     | 5.0  |      | - |
|                                      | Fall Time    | t <sub>f</sub>       |  | KRC110M | -     | 0.2  |      | - |
|                                      |              |                      |  | KRC111M | -     | 0.12 |      | - |
|                                      |              |                      |  | KRC112M | -     | 2.0  |      | - |
|                                      |              |                      |  | KRC113M | -     | 0.9  |      | - |
|                                      |              |                      |  | KRC114M | -     | 1.4  |      | - |

Note : \*Characteristic of Trnsistor Only

# KRC110M ~ KRC114M



# KRC110M ~ KRC114M

