

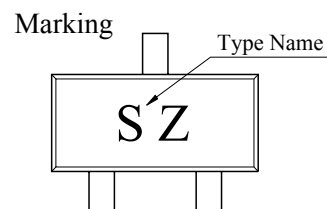
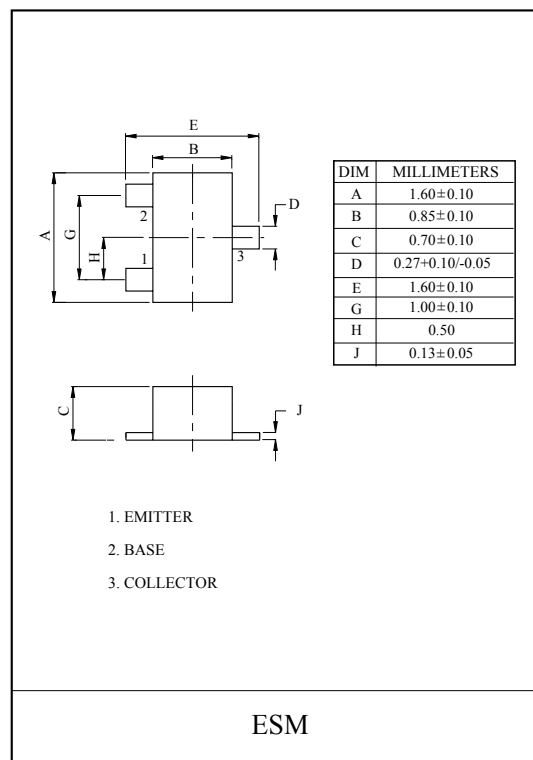
## SWITCHING APPLICATION.

## FEATURES

- A Collector Current is Large.
- Collector Saturation Voltage is low.  
:  $V_{CE(sat)} \leq -250\text{mV}$  at  $I_C = -200\text{mA}/I_B = -10\text{mA}$ .
- Complementary to KTC4072E.

## MAXIMUM RATING (Ta=25℃)

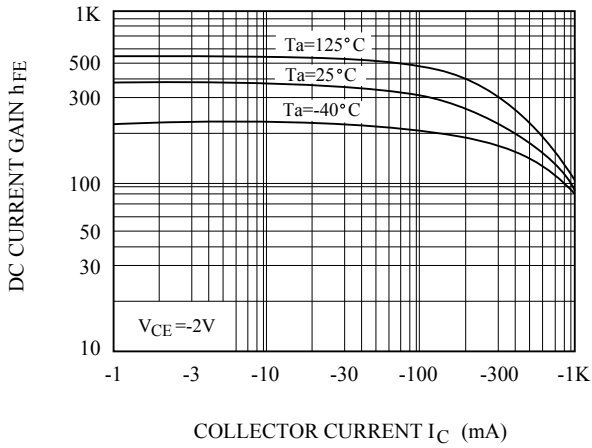
| CHARACTERISTIC              | SYMBOL     | RATING    | UNIT |
|-----------------------------|------------|-----------|------|
| Collector-Base Voltage      | $V_{CBO}$  | -15       | V    |
| Collector-Emitter Voltage   | $V_{CEO}$  | -12       | V    |
| Emitter-Base Voltage        | $V_{EBO}$  | -6        | V    |
| Collector Current           | $I_C$      | -500      | mA   |
|                             | $I_{CP}^*$ | -1        | A    |
| Collector Power Dissipation | $P_C$      | 100       | mW   |
| Junction Temperature        | $T_j$      | 150       | ℃    |
| Storage Temperature Range   | $T_{stg}$  | -55 ~ 150 | ℃    |

\* Single pulse  $P_w = 1\text{mS}$ .

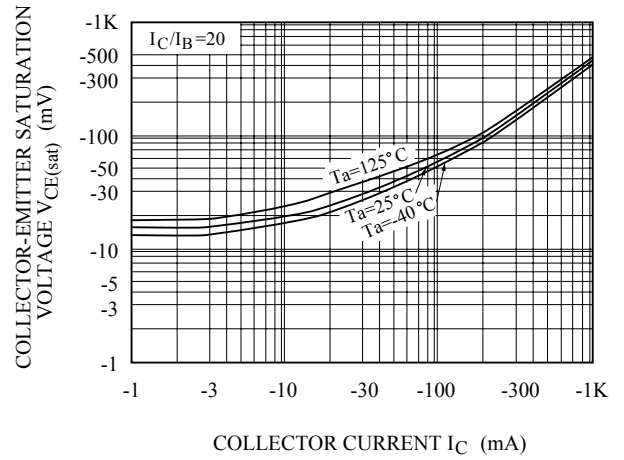
## ELECTRICAL CHARACTERISTICS (Ta=25℃)

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION                                                 | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|----------------------------------------------------------------|------|------|------|------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB} = -15\text{V}, I_E = 0$                                | -    | -    | -100 | nA   |
| Collector-Base Breakdown Voltage     | $V_{(BR)CBO}$ | $I_C = -10\mu\text{A}$                                         | -15  | -    | -    | V    |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = -1\text{mA}$                                            | -12  | -    | -    | V    |
| Emitter-Base Breakdown Voltage       | $V_{(BR)EBO}$ | $I_E = -10\mu\text{A}$                                         | -6   | -    | -    | V    |
| DC Current Gain                      | $h_{FE}$      | $V_{CE} = -2\text{V}, I_C = -10\text{mA}$                      | 270  | -    | 680  | -    |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -200\text{mA}, I_B = -10\text{mA}$                      | -    | -100 | -250 | mV   |
| Transition Frequency                 | $f_T$         | $V_{CE} = -2\text{V}, I_C = -10\text{mA}, f_T = 100\text{MHz}$ | -    | 260  | -    | MHz  |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$               | -    | 6.5  | -    | pF   |

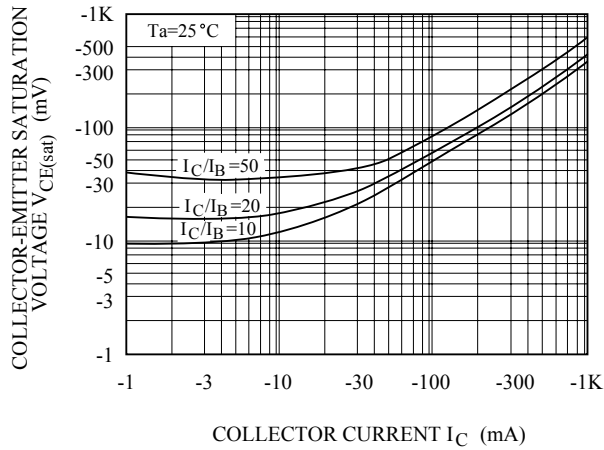
$h_{FE} - I_C$



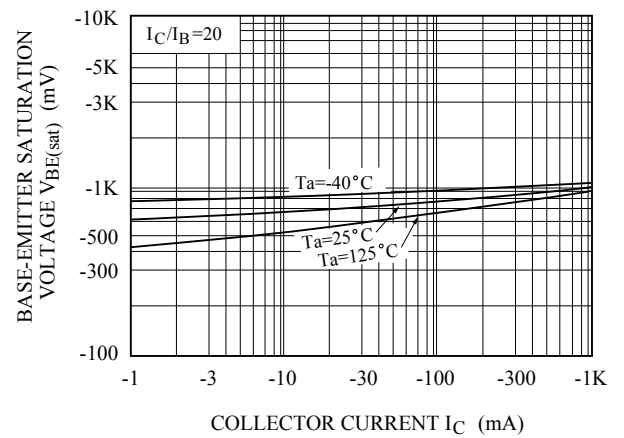
$V_{CE(sat)} - I_C$



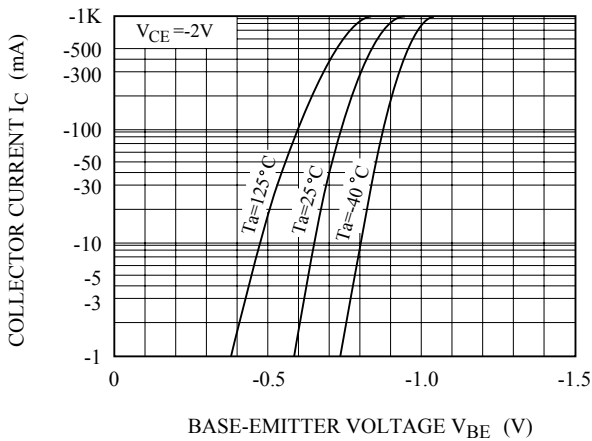
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$f_T - I_C$

