

#### SWITCHING APPLICATION.

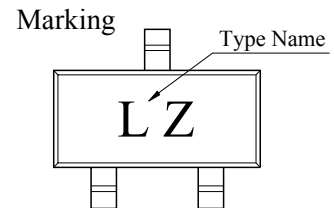
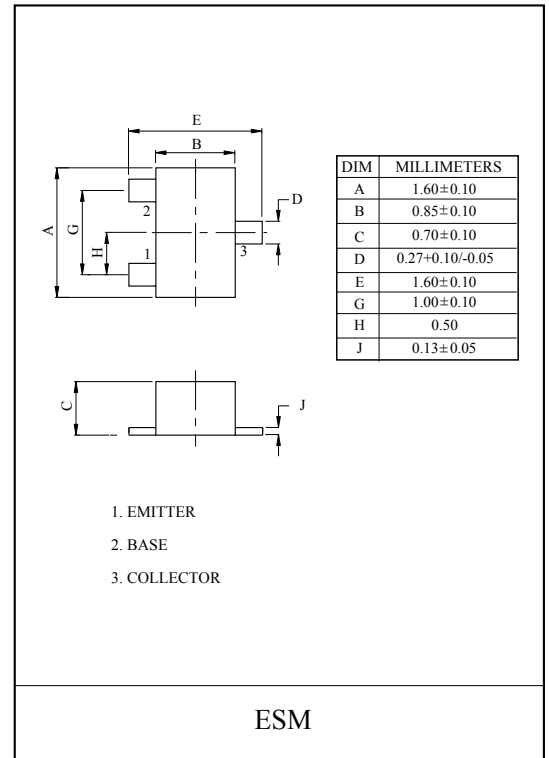
#### FEATURES

- High Current.
- Low  $V_{CE(sat)}$ .  
:  $V_{CE(sat)} \leq 250\text{mV}$  at  $I_C=200\text{mA}/I_B=10\text{mA}$ .
- Complementary to KTA2012E.

#### MAXIMUM RATING (Ta=25°C)

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

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

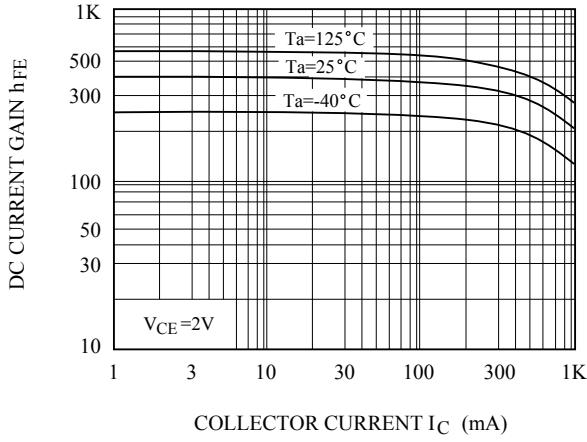


#### ELECTRICAL CHARACTERISTICS (Ta=25°C)

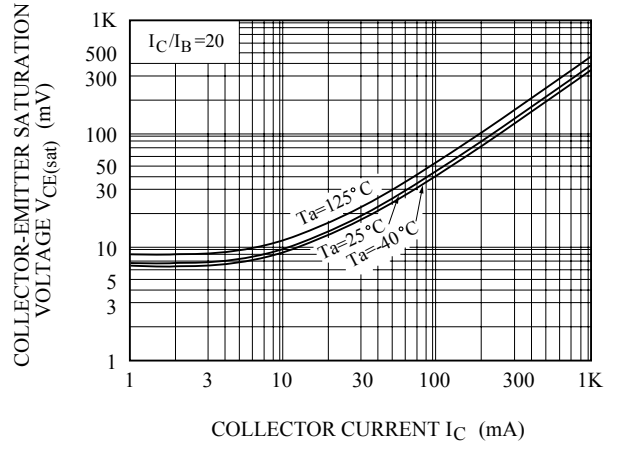
| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION   | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|--|------|------|------|------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB}=15\text{V}, I_E=0$                             | -    | -    | 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 | $V_{CE(sat)}$ | $I_C=200\text{mA}, I_B=10\text{mA}$                    | -    | 90   | 250  | mV   |
| Transition Frequency                 | $f_T$         | $V_{CE}=2\text{V}, I_C=10\text{mA}, f_T=100\text{MHz}$ | -    | 320  | -    | MHz  |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$              | -    | 7.5  | -    | pF   |

# KTC4072E

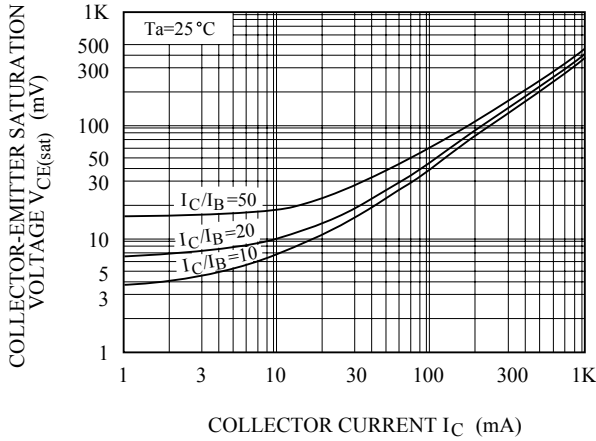
$h_{FE} - I_C$



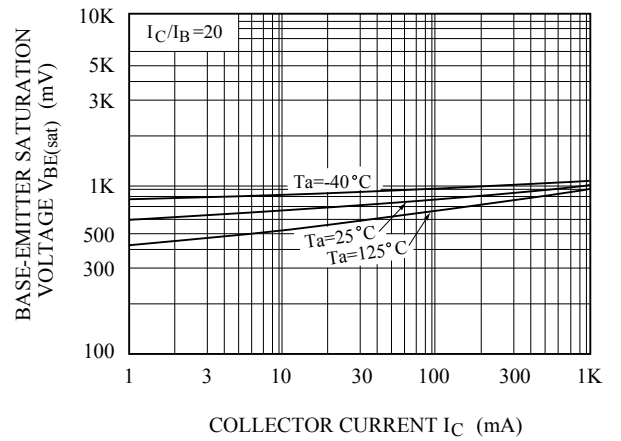
$V_{CE(sat)} - I_C$



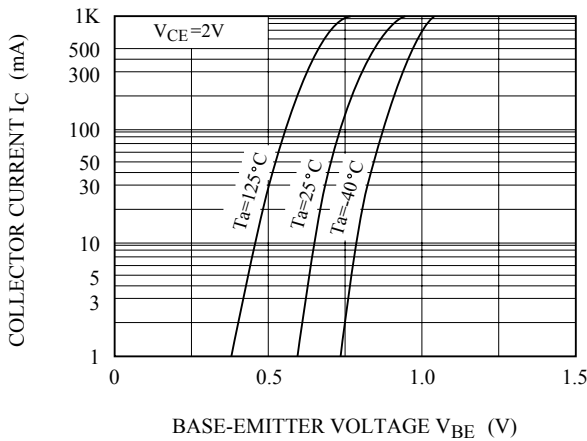
$V_{CE(sat)} - I_C$



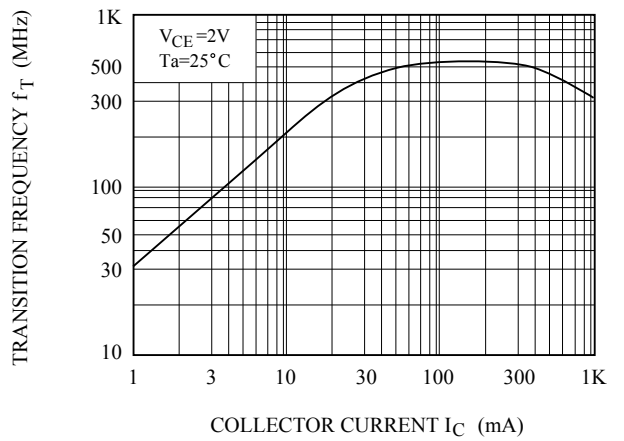
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$f_T - I_C$



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