

GENERAL PURPOSE APPLICATION.
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 KTA702E.

MAXIMUM RATINGS (Ta=25°C)

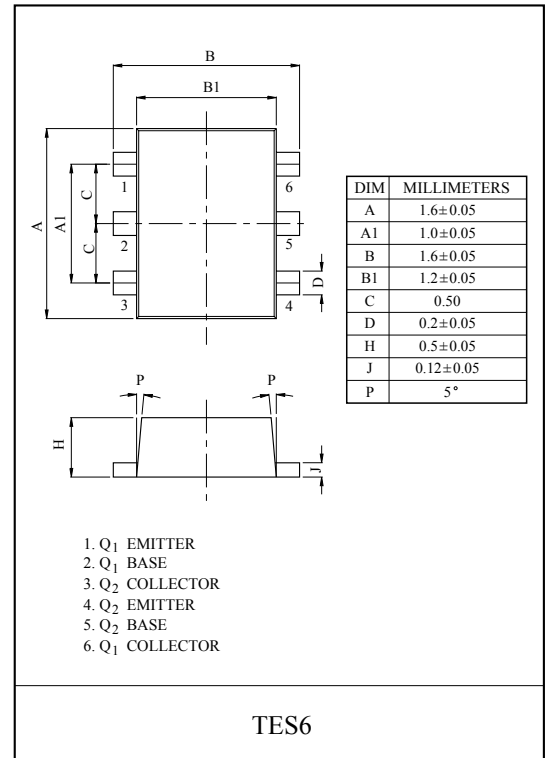
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------------|-----------|------|
| Collector-Base Voltage | V_{CBO} | 15 | V |
| Collector-Emitter Voltage | V_{CEO} | 12 | V |
| Emitter-Base Voltage | V_{EBO} | 6 | V |
| Collector Current | I_C | 500 | mA |
| | I_{CP} (Note) | 1 | A |
| Collector Power Dissipation | P_C^* | 200 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | °C |

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

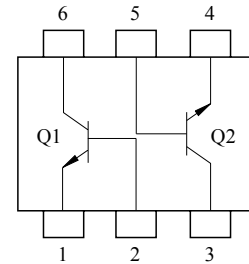
* Total Rating.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

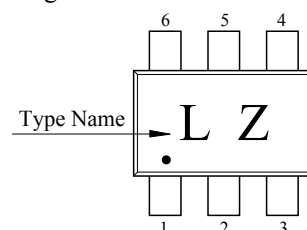
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|--|------|------|------|------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=15\text{V}, I_E=0$ | - | - | 100 | nA |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=10\mu\text{A}$ | 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 |



EQUIVALENT CIRCUIT (TOP VIEW)

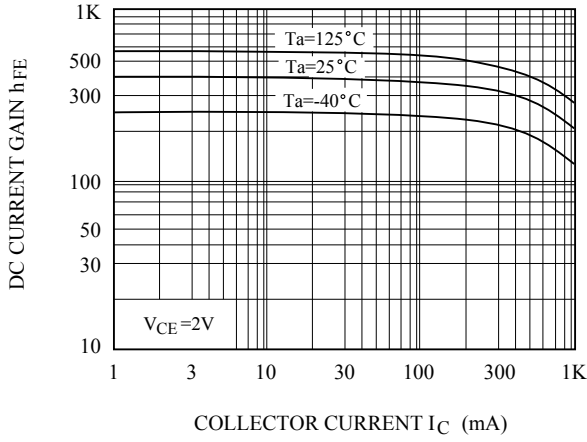


Marking

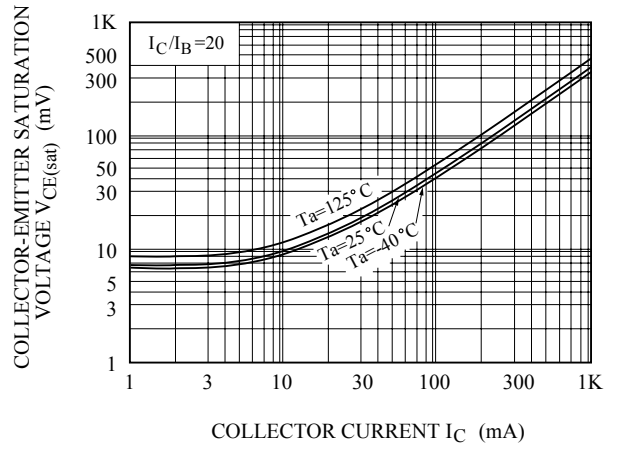


KTC802E

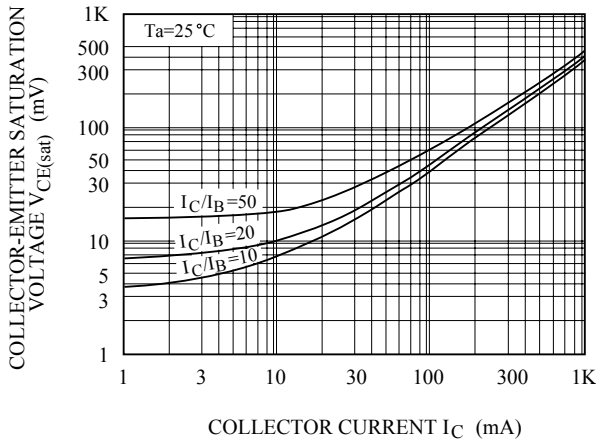
$h_{FE} - I_C$



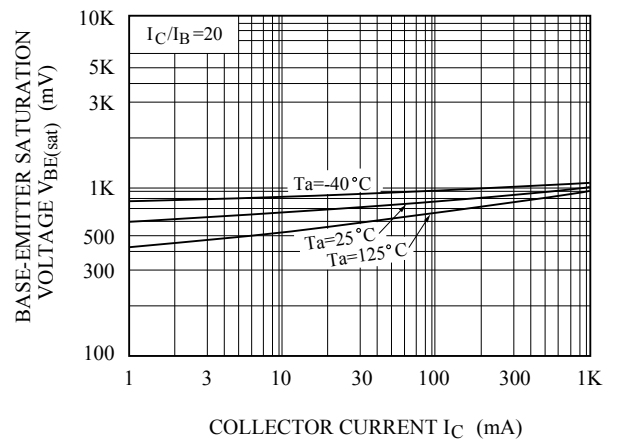
$V_{CE(sat)} - I_C$



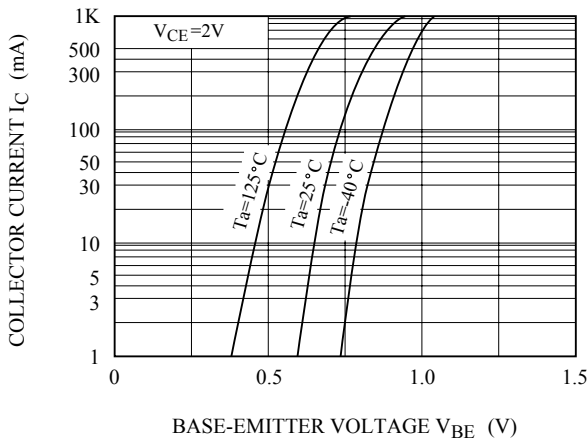
$V_{CE(sat)} - I_C$



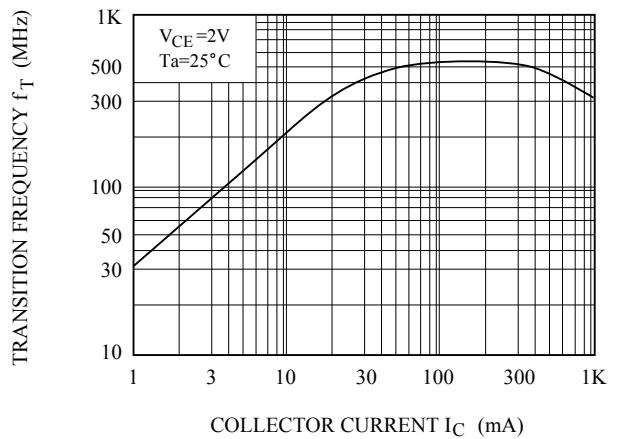
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$f_T - I_C$



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