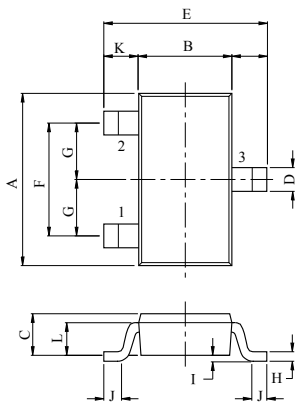
RELAY DRIVERS, LAMP DRIVERS,
MOTOR DRIVERS, STROBES APPLICATION.

FEATURES

- Adoption of MBIT Processes.
- Large Current Capacitance.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- Ultrasmall Package Facilitates Miniaturization in end Products.
- High Allowable Power Dissipation.
- Complementary to KTA1542T.




| DIM | MILLIMETERS |
|---|---|
| A | 2.9±0.2 |
| B | 1.6+0.2/-0.1 |
| C | 0.70±0.05 |
| D | 0.4±0.1 |
| E | 2.8+0.2/-0.3 |
| F | 1.9±0.2 |
| G | 0.95 |
| H | 0.16±0.05 |
| I | 0.00-0.10 |
| J | 0.25+0.25/-0.15 |
| K | 0.60 |
| L | 0.55 |

1. EMITTER
2. BASE
3. COLLECTOR

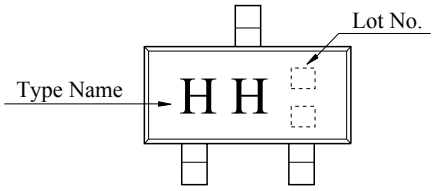
TSM

MAXIMUM RATING (Ta=25℃)

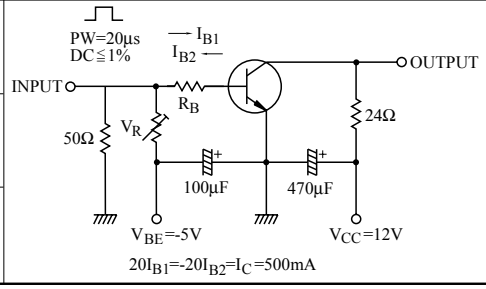
| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---|---|---|---|---|
| Collector-Base Voltage | | $V_{CBO}$ | 40 | V |
| Collector-Emitter Voltage | | $V_{CEO}$ | 30 | V |
| Emitter-Base Voltage | | $V_{EBO}$ | 5 | V |
| Collector Current | DC | $I_C$ | 3 | A |
| | Pulse | $I_{CP}$ | 5 | |
| Base Current | | $I_B$ | 600 | mA |
| Collector Power Dissipation | | $P_C$ * | 0.9 | W |
| Junction Temperature | | $T_j$ | 150 | ℃ |
| Storage Temperature Range | | $T_{stg}$ | -55～150 | ℃ |

* Package mounted on a ceramic board (600㎟×0.8㎜)

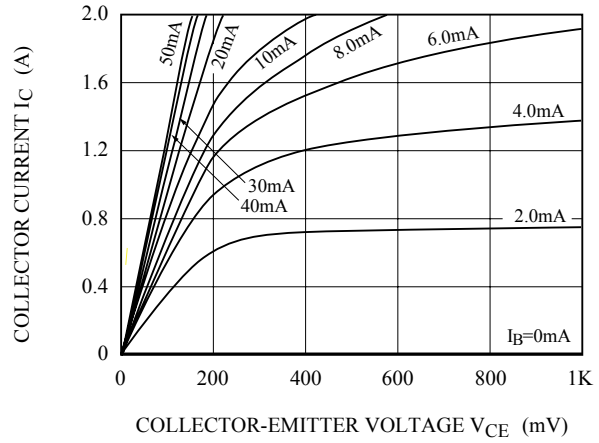
Marking



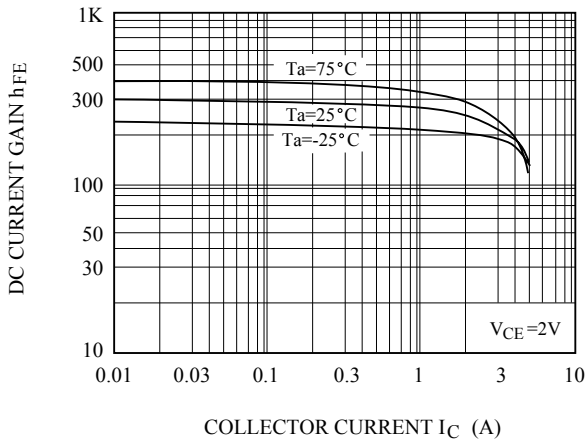

ELECTRICAL CHARACTERISTICS (Ta=25℃)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|---|
| Collector Cut-off Current | | $I_{CBO}$ | $V_{CB}$=30V, $I_E$=0 | - | - | 0.1 | μA |
| Emitter Cut-off Current | | $I_{EBO}$ | $V_{EB}$=4V, $I_C$=0 | - | - | 0.1 | μA |
| Collector-Base Breakdown Voltage | | $V_{(BR)CBO}$ | $I_C$=10μA, $I_E$=0 | 40 | - | - | V |
| Collector-Emitter Breakdown Voltage | | $V_{(BR)CEO}$ | $I_C$=1mA, $I_B$=0 | 30 | - | - | V |
| Emitter-Base Breakdown Voltage | | $V_{(BR)EBO}$ | $I_E$=10μA, $I_C$=0 | 5 | - | - | V |
| Collector-Emitter Saturation Voltage | | $V_{CE(sat)1}$ | $I_C$=1.5A, $I_B$=30mA | - | 120 | 180 | mV |
| | | $V_{CE(sat)2}$ | $I_C$=1.5A, $I_B$=75mA | - | 105 | 155 | mV |
| Base-Emitter Saturation Voltage | | $V_{BE(sat)}$ | $I_C$=1.5A, $I_B$=30mA | - | 0.83 | 1.2 | V |
| DC Current Gain | | $h_{FE}$ | $V_{CE}$=2V, $I_C$=500mA | 200 | - | 560 | |
| Transition Frequency | | $f_T$ | $V_{CE}$=10V, $I_C$=500mA | - | 450 | - | MHz |
| Collector Output Capacitance | | $C_{ob}$ | $V_{CB}$=10V, f=1MHz | - | 20 | - | pF |
| Swiitching Time | Turn-On Time | $t_{on}$ |  | - | 30 | - | nS |
| | Storage Time | $t_{stg}$ | | - | 300 | - | |
| | Fall Time | $t_f$ | | - | 15 | - | |

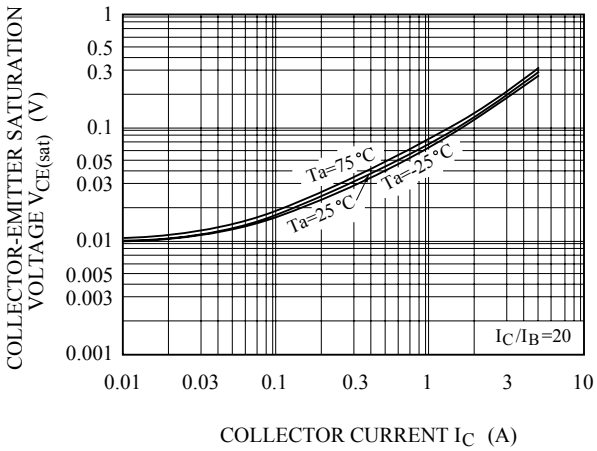
$I_C$ - $V_{CE}$



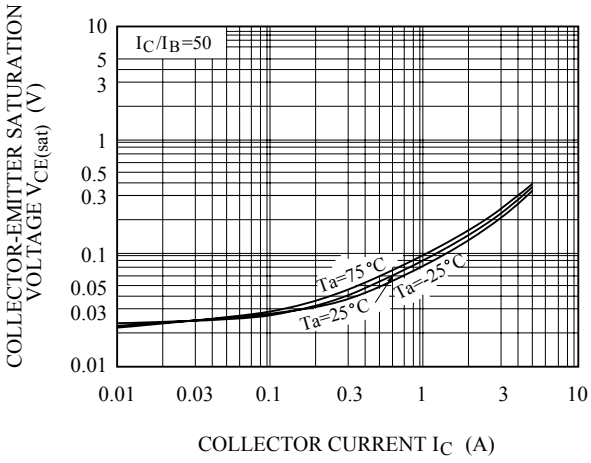

$h_{FE}$ - $I_C$



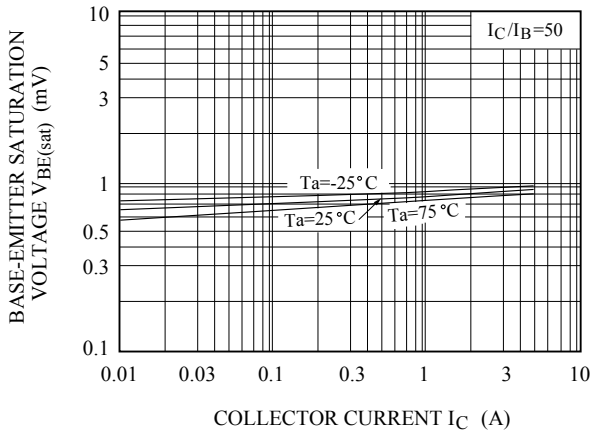

$V_{CE(sat)}$ - $I_C$



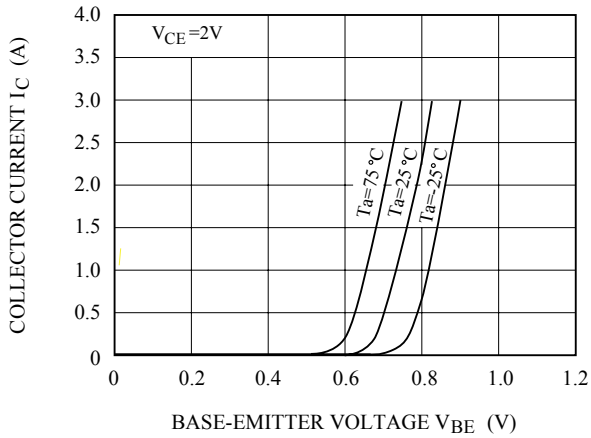

$V_{CE(sat)}$ - $I_C$



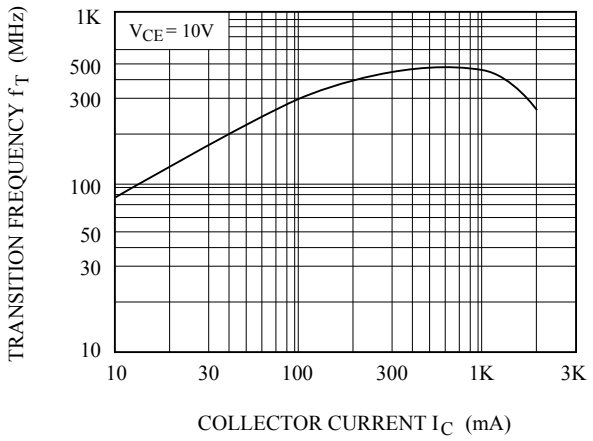

$V_{BE(sat)}$ - $I_C$



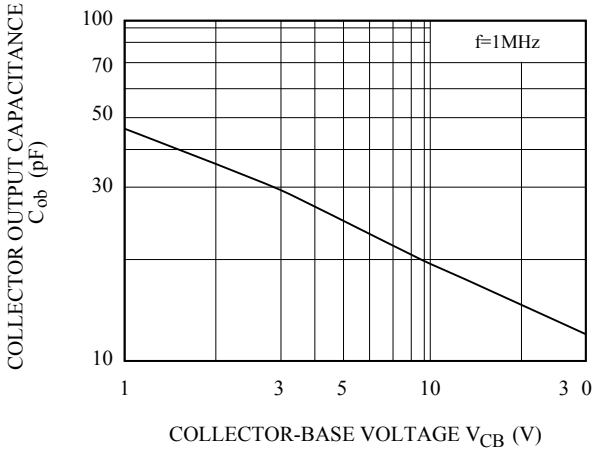

$I_C$ - $V_{BE}$



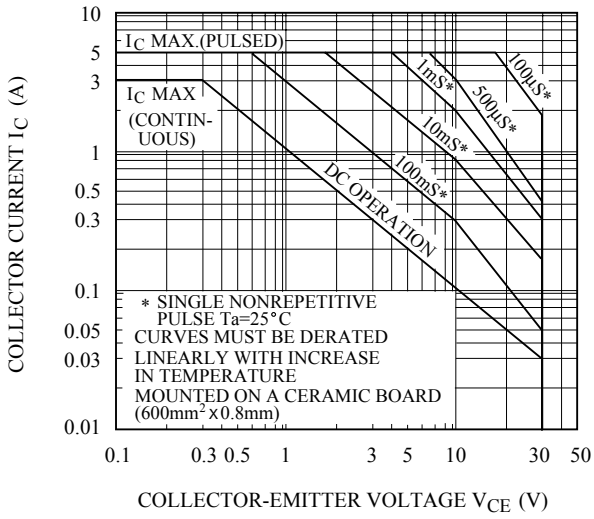
$f_T$ - $I_C$




$C_{ob}$ - $V_{CB}$




SAFE OPERATING AREA




Pc - Ta