

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

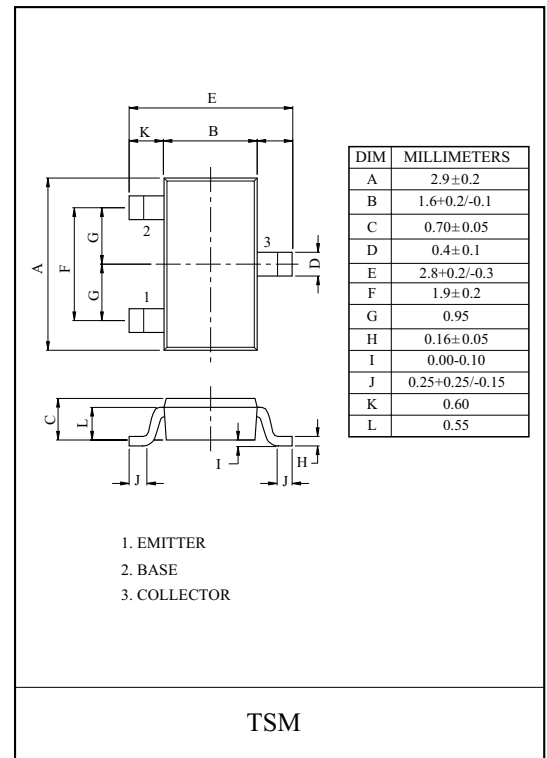
FEATURES

- 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 KTC3542T.

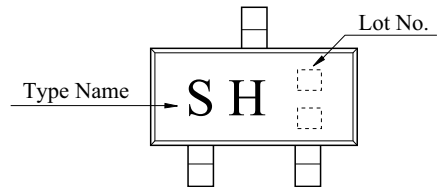
MAXIMUM RATING (Ta=25 °C)

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

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



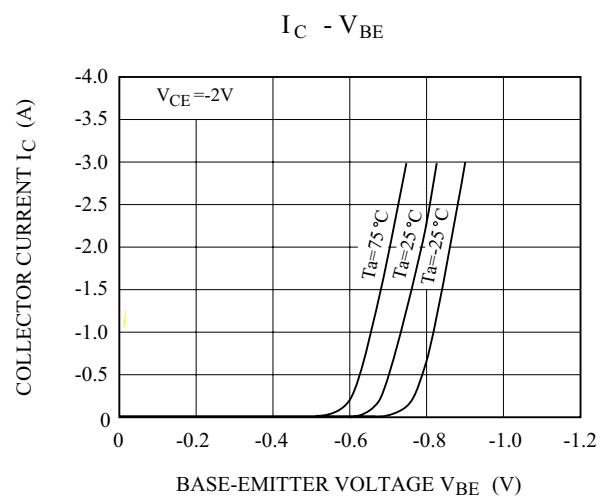
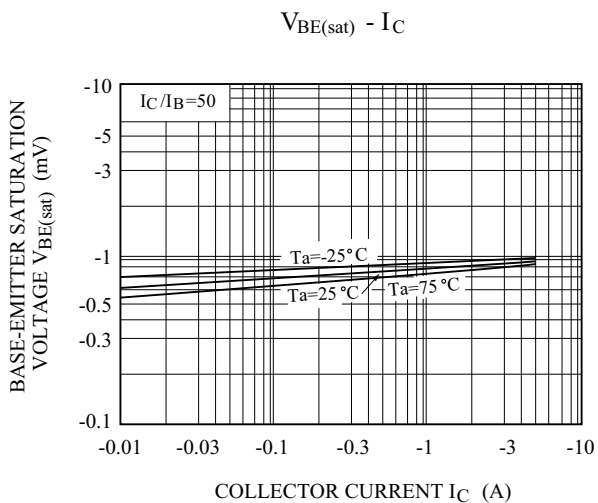
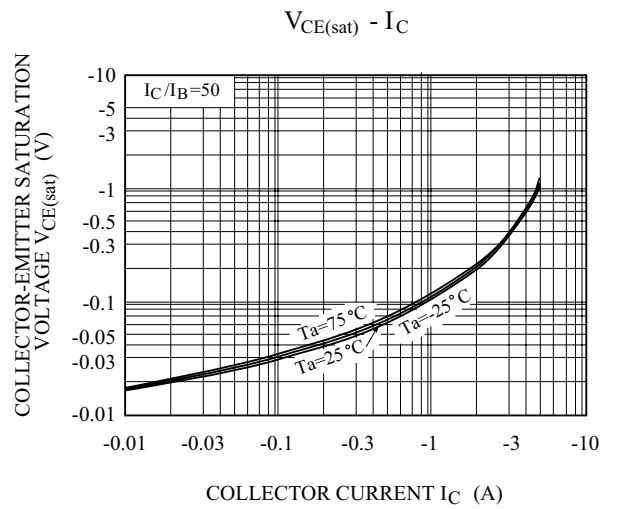
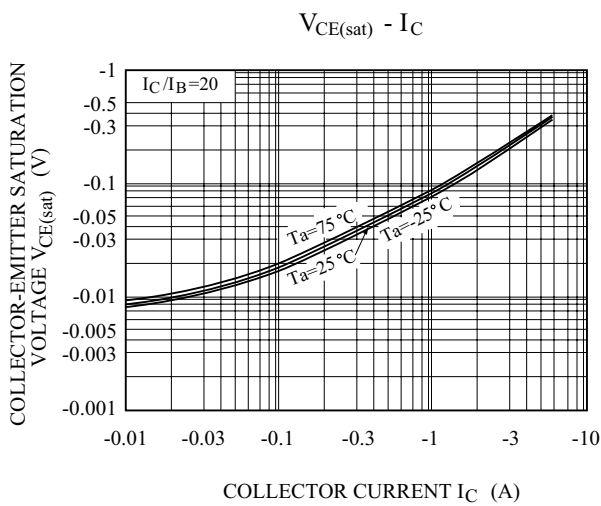
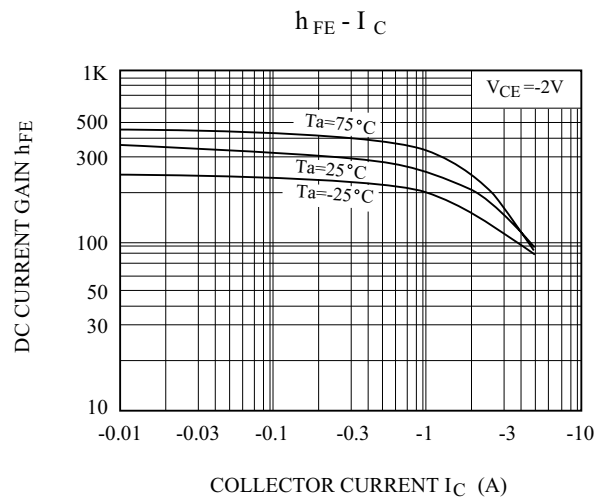
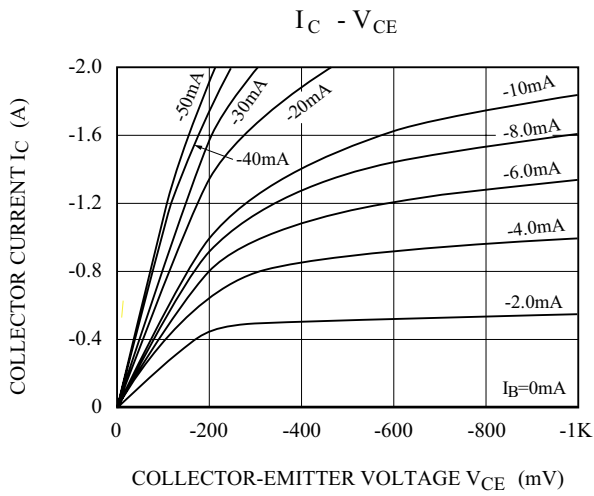
Marking



ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| 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 | $V_{(BR)CBO}$ | $I_C=-10\mu A, I_E=0$ | -30 | - | - | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=-1mA, I_B=0$ | -30 | - | - | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=-10\mu A, I_C=0$ | -5 | - | - | V |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)1}$ | $I_C=-1.5A, I_B=-30mA$ | - | -155 | -230 | 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 | $V_{CE}=-10V, I_C=-500mA$ | - | 380 | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=-10V, f=1MHz$ | - | 25 | - | pF |
| Switching Time | Turn-On Time | t_{on} | - | 50 | - | nS |
| | Storage Time | t_{stg} | - | 270 | - | |
| | Fall Time | t_f | - | 25 | - | |

KTA1542T



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