

VOLTAGE REGULATORS, RELAY DRIVERS
LAMP DRIVERS, ELECTRICAL EQUIPMENT

FEATURES

- Adoption of MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- Complementary to KTB1124.
- Suffix U : Qualified to AEC-Q101.
ex) KTD1624-B-RTF/HU

MAXIMUM RATING (Ta=25°C)

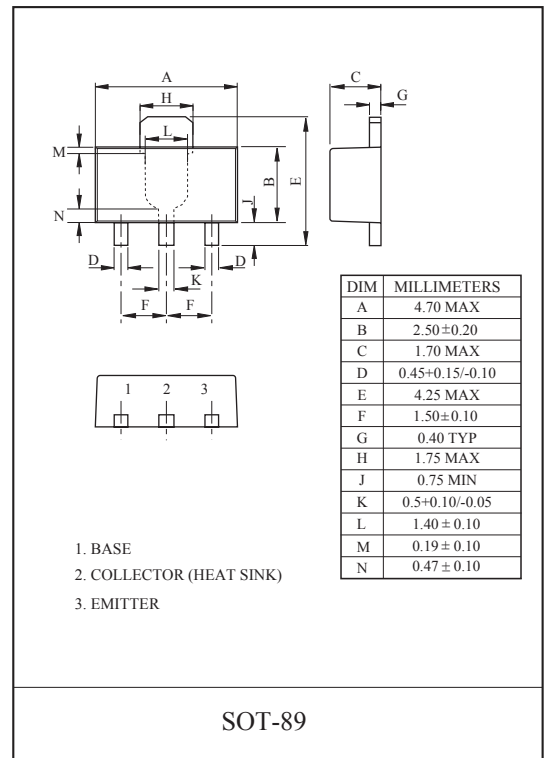
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|------------------|-----------|------|
| Collector-Base Voltage | V _{CBO} | 60 | V |
| Collector-Emitter Voltage | V _{CEO} | 50 | V |
| Emitter-Base Voltage | V _{EBO} | 6 | V |
| Collector Current | I _C | 3 | A |
| Collector Current(Pulse) | I _{CP} | 6 | A |
| Base Current | I _B | 600 | mA |
| Collector Power Dissipation | P _C | 500 | mW |
| | P _C * | 1 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature Range | T _{stg} | -55 ~ 150 | °C |

* : Package mounted on ceramic substrate(250mm² × 0.8t)

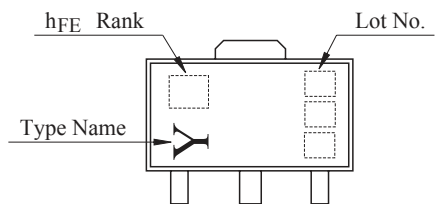
ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT. |
|--------------------------------------|----------------------------|---|------|------|------|-------|
| Collector Cut-off Current | I _{CBO} | V _{CB} =40V, I _E =0 | - | - | 1 | μA |
| Emitter Cut-off Current | I _{EBO} | V _{EB} =4V, I _C =0 | - | - | 1 | μA |
| DC Current Gain | h _{FE} (1) (Note) | V _{CE} =2V, I _C =100mA | 100 | - | 400 | |
| | h _{FE} (2) | V _{CE} =2V, I _C =3A | 35 | - | - | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C =2A, I _B =100mA | - | 0.19 | 0.5 | V |
| Base-Emitter Saturation Voltage | V _{BE(sat)} | I _C =2A, I _B =100mA | - | 0.94 | 1.2 | V |
| Transition Frequency | f _T | V _{CE} =10V, I _C =50mA | - | 150 | - | MHz |
| Collector Output Capacitance | C _{ob} | V _{CB} =10V, f=1MHz, I _E =0 | - | 25 | - | pF |
| Switching Time | Turn-on Time | t _{on} | - | 70 | - | nS |
| | Storage Time | t _{stg} | - | 650 | - | |
| | Fall Time | t _f | - | 35 | - | |

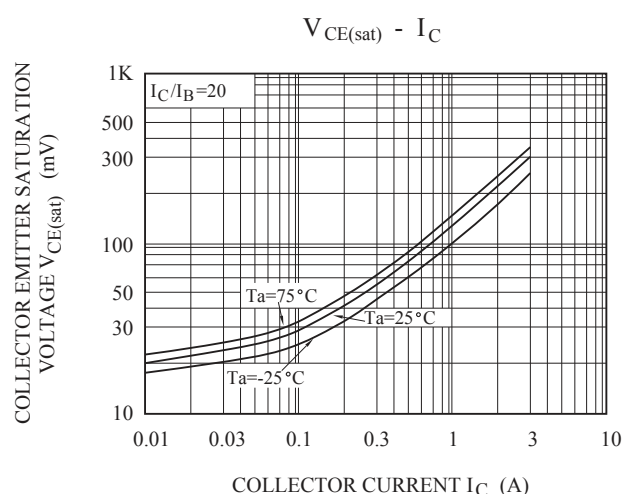
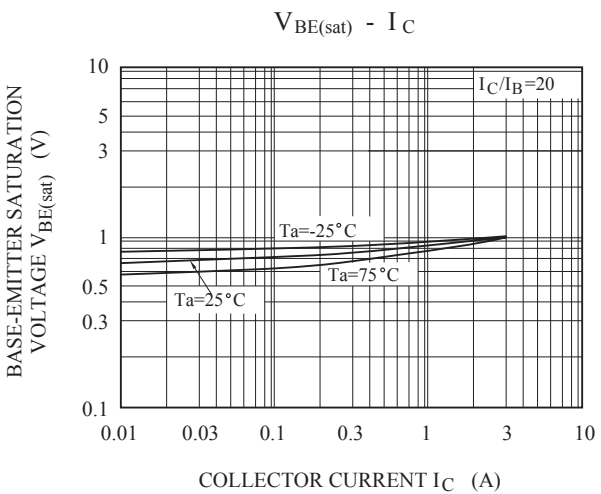
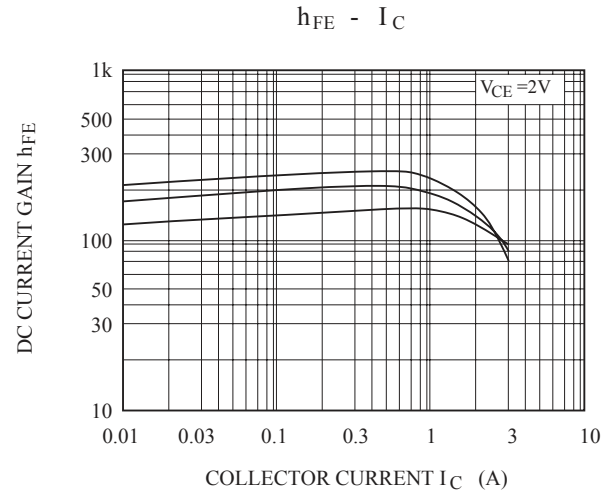
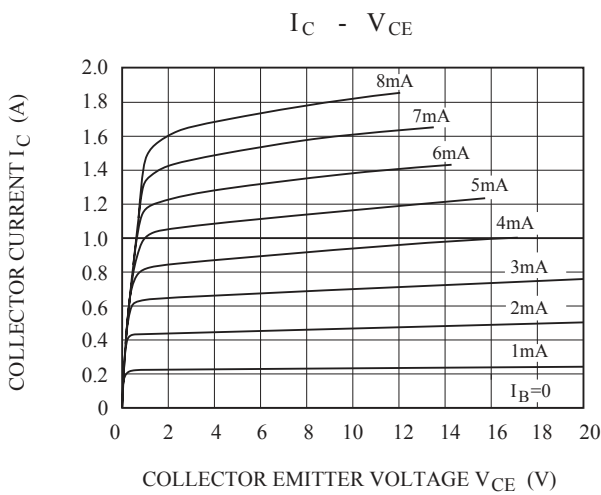
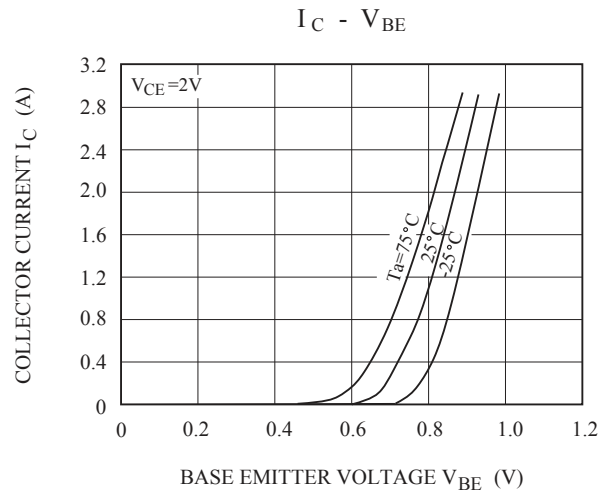
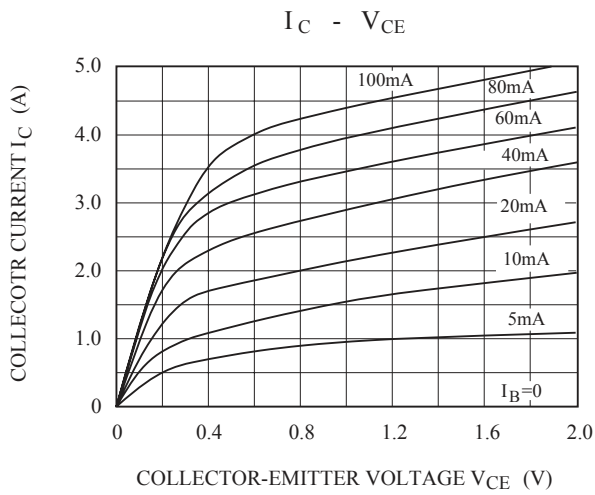
Note : h_{FE}(1) Classification A:100 ~ 200, B:140 ~ 280, C:200 ~ 400



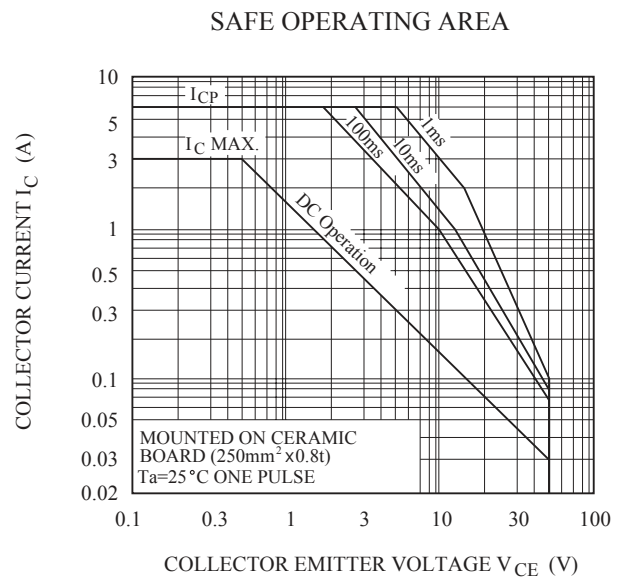
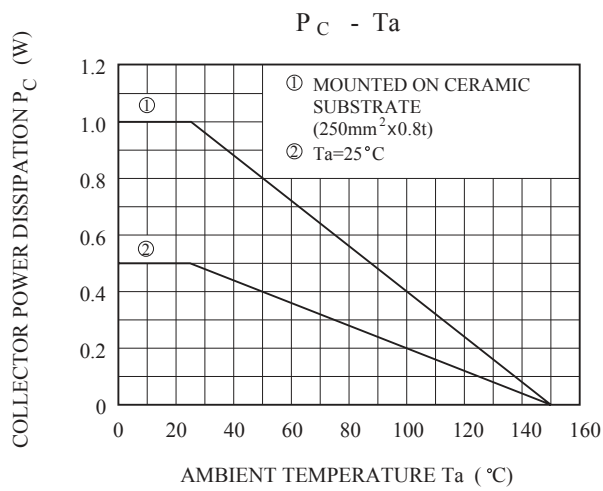
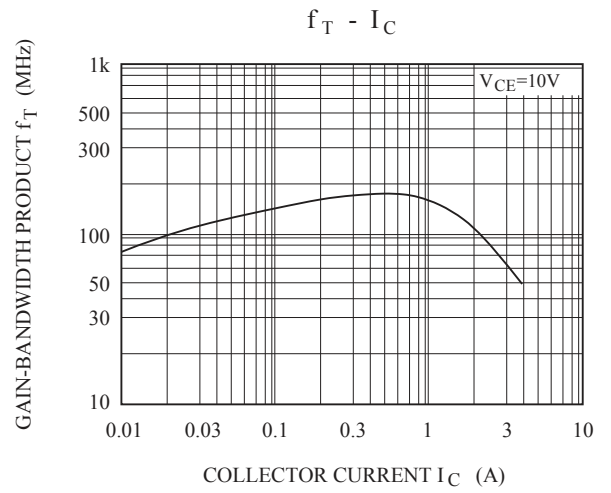
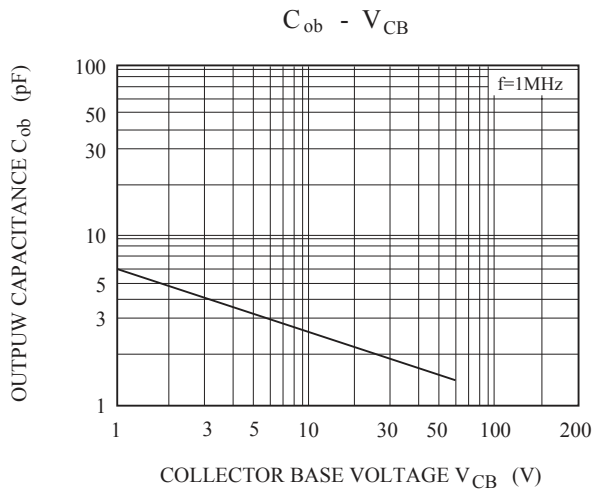
Marking



KTD1624



KTD1624



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