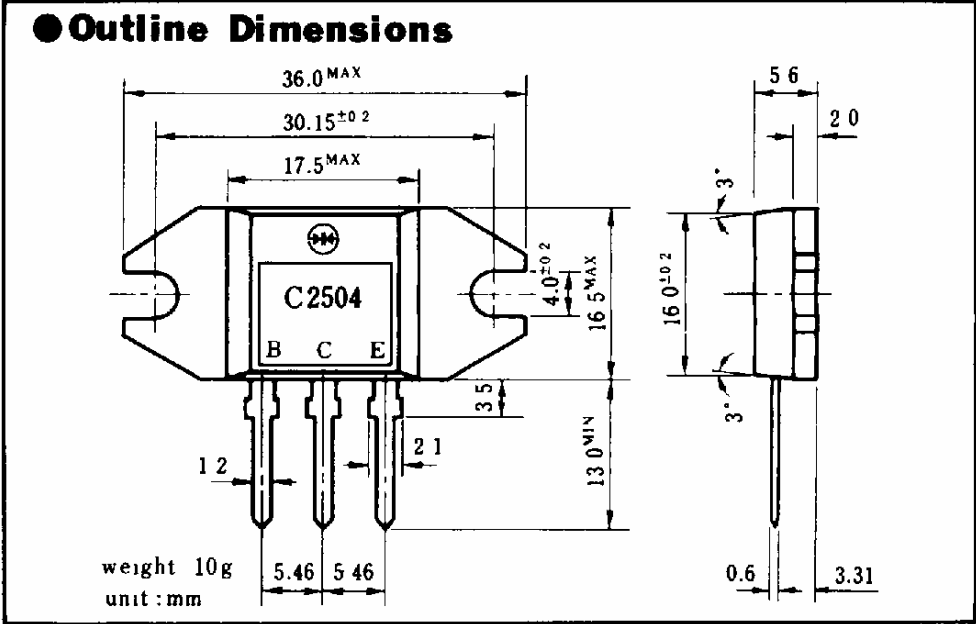


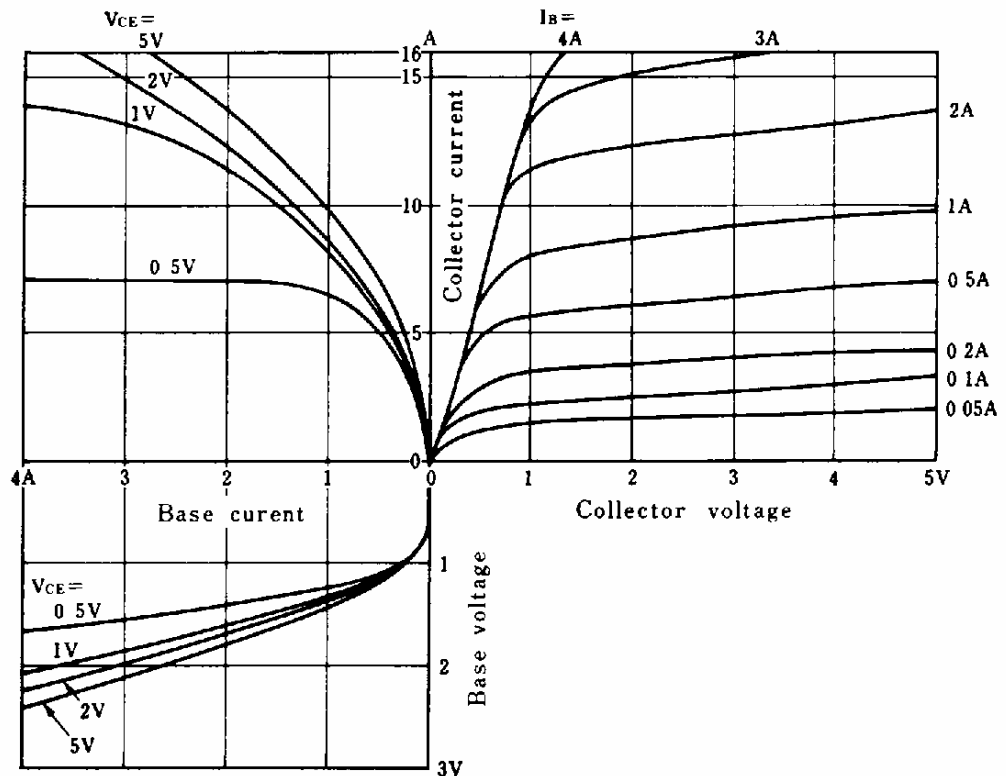
100W T10V F1



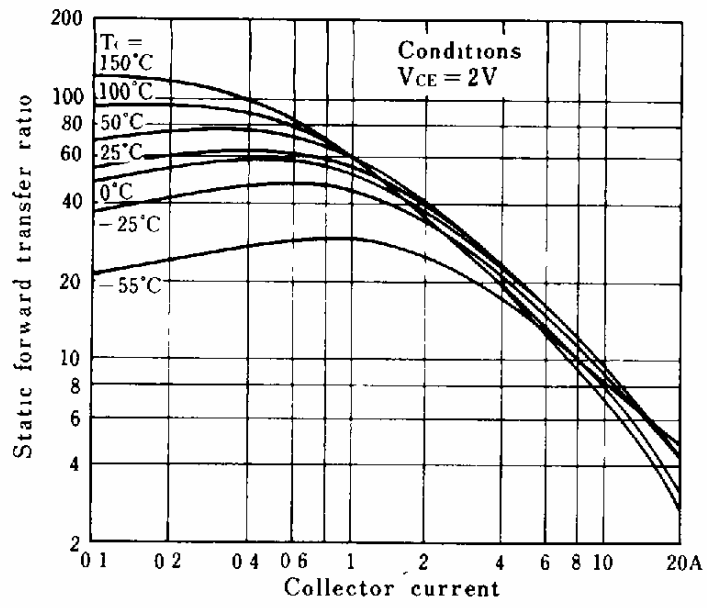
● Ratings

| Item | Symbol | EIAJ.No. | | Unit | |
|--|---|---|--|--------------------|------|
| | | House. No. | Conditions | | |
| | | | 2SC2504 | | |
| | | | T10V40F1 | | |
| Absolute Maximum Ratings | Storage Temperature | T _{stg} | -55 ~ +150 | °C | |
| | Junction Temperature | T _j | +150 | °C | |
| | Collector to Base Voltage | V _{CB0} | 500 | V | |
| | Collector to Emitter Voltage | V _{CE0} | 400 | V | |
| | Emitter to Base Voltage | V _{EB0} | 7 | V | |
| | Collector Current | DC | I _c | 10 | A |
| | | Peak | I _{cP} | 20 | A |
| | Base Current | DC | I _B | 4 | A |
| Peak | | I _{BP} | 8 | A | |
| Transistor Dissipation | P _T | T _c = 25°C | 100 | W | |
| Electrical Characteristics (T _c = 25°C) | Collector to Emitter Sustaining Voltage | V _{CE0(sus)} | I _c = 0.2A | MIN 400 | V |
| | Collector Cut-off Current | I _{CB0} | At Rated Voltage | MAX 0.1 | mA |
| | | I _{CE0} | At Rated Voltage × 0.8 | MAX 0.1 | |
| | Emitter Cut-off Current | I _{EB0} | At Rated Voltage | MAX 1 | mA |
| | Static Forward Transfer Ratio | h _{FE1} | V _{CE} = 2V I _c = 5A | MIN 15 | |
| | | | STD 20 | | |
| | | h _{FE2} | V _{CE} = 2V I _c = 10A | MIN 8 | |
| | | | STD 10 | | |
| | Collector to Emitter Saturation Voltage | V _{CE(sat)} | I _c = 5A I _B = 0.5A | STD 0.4 MAX 0.7 | V |
| | Base to Emitter Saturation Voltage | V _{BE(sat)} | | STD 1 MAX 1.5 | V |
| | Junction to Case Thermal Resistance | θ _{JC} | Between Junction and Case | MAX 1.25 | °C/W |
| | Gain Bandwidth Product | f _T | V _{CE} = 10V I _c = 1A | STD 20 | MHz |
| Turn on Time | t _{on} | I _{B1} = I _{B2} = 1A I _c = 5A | STD 0.7 MAX 1 | μs | |
| | | R _L = 5Ω | | | |
| Storage Time | t _s | V _{BB2} = 4V | STD 2.4 MAX 3 | μs | |
| | | | | | |
| Fall Time | t _f | | STD 0.5 MAX 0.7 | μs | |
| | | | | | |

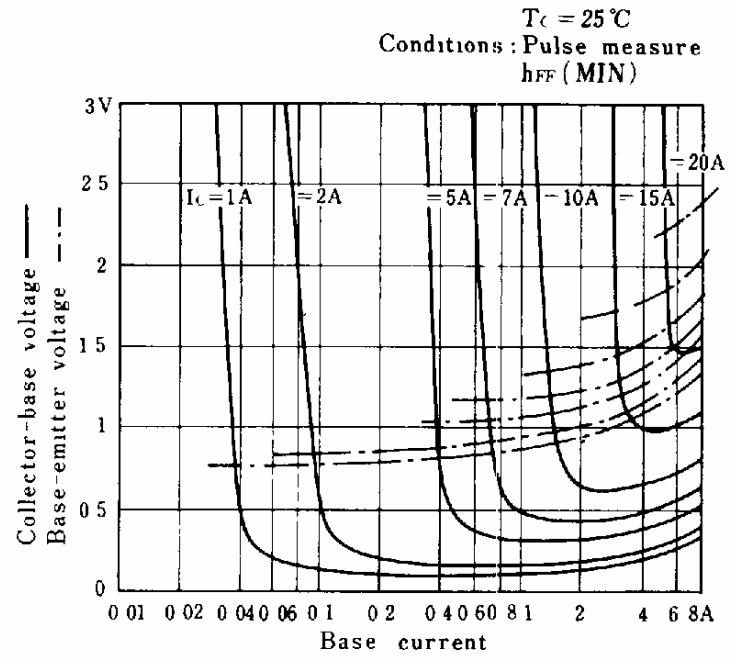
● Input Output transmission characteristics



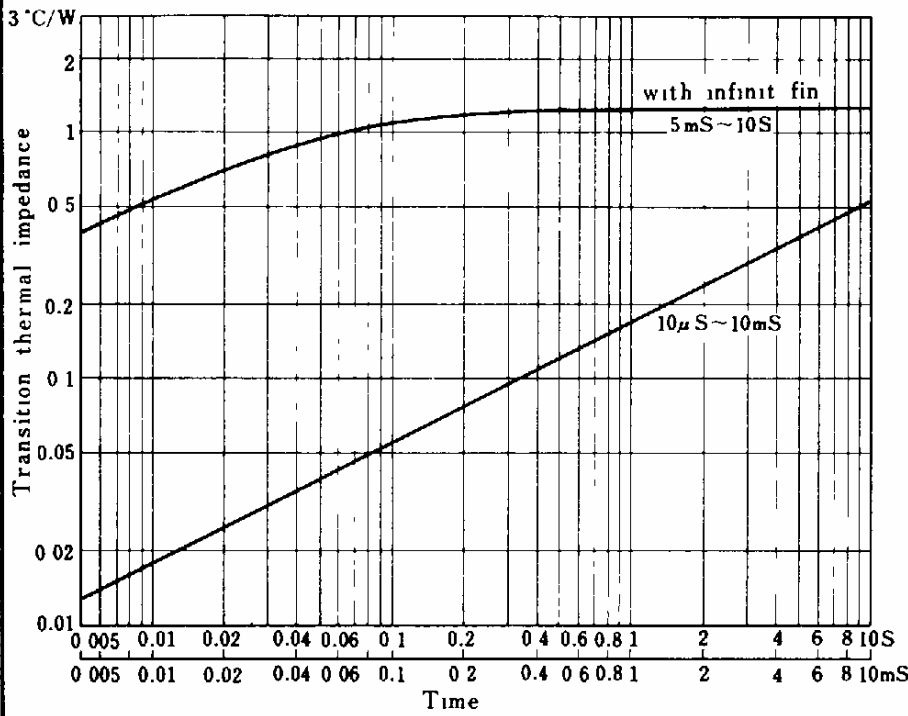
● Static forward transfer ratio vs temp. characteristics



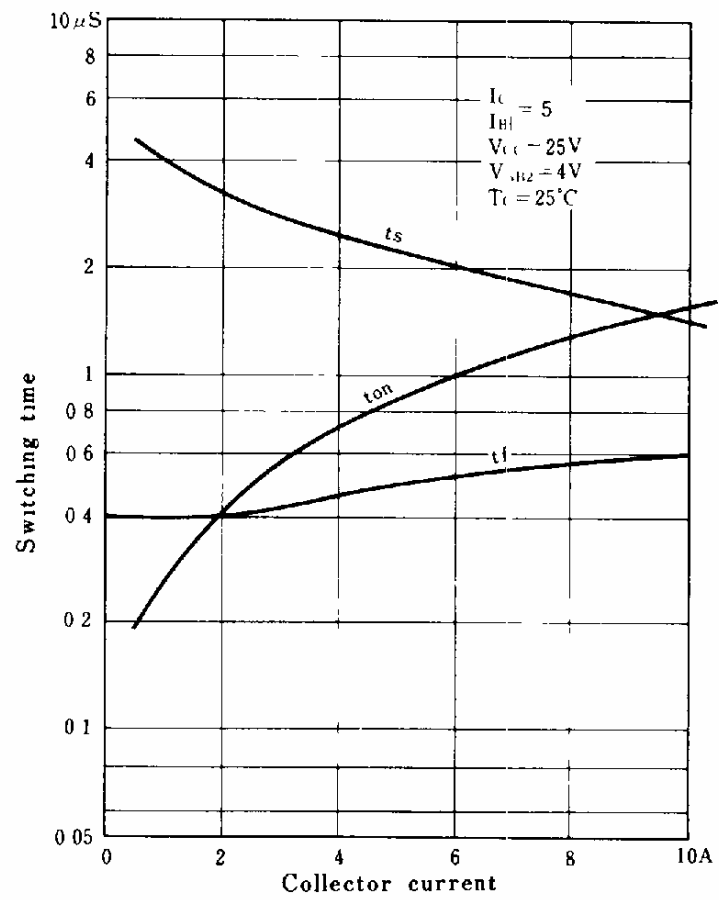
● Saturation voltage characteristics



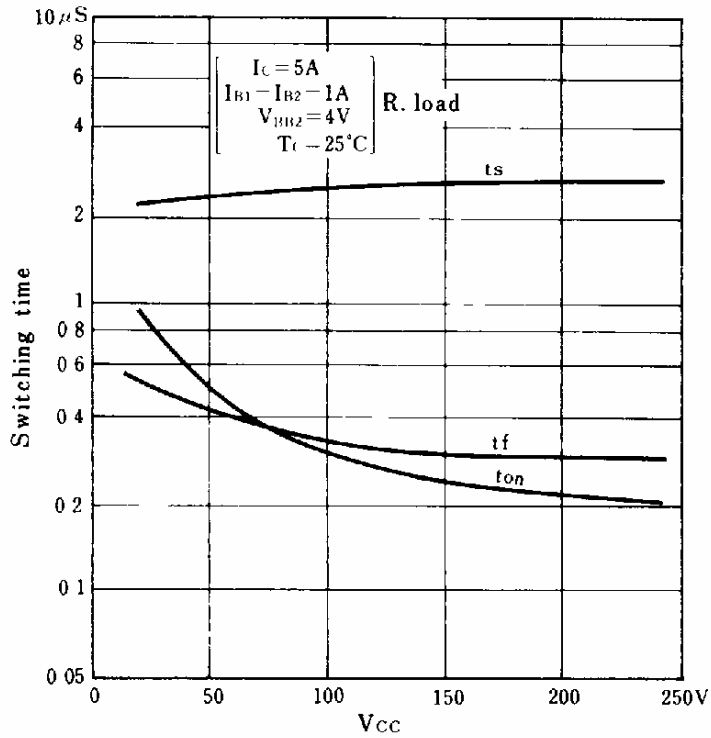
● Transition heat impedance



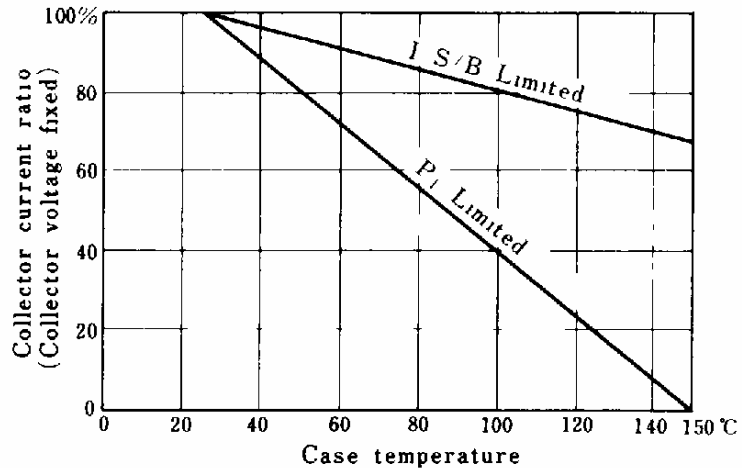
● Collector current vs Switching time



● Vcc vs Switching time



● Dissipation and Is/B derating curve



● Safe operating zone

