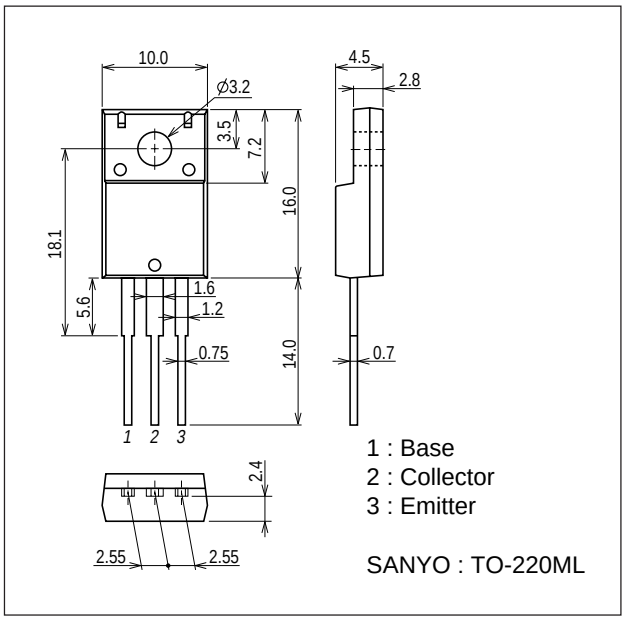
## Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Collector Cutoff Current | $I_{CBO}$ | $V_{CB}$=40V, $I_E$=0A | | | 10 | μA |
| Emitter Cutoff Current | $I_{EBO}$ | $V_{EB}$=4V, $I_C$=0A | | | 10 | μA |
| DC Current Gain | $h_{FE}$ | $V_{CE}$=2V, $I_C$=270mA | 200 | | 560 | |
| Gain-Bandwidth Product | $f_T$ | $V_{CE}$=10V, $I_C$=3A | | 330 | | MHz |
| Output Capacitance | Cob | $V_{CB}$=10V, f=1MHz | | 60 | | pF |
| Collector-to-Emitter Saturation Voltage | $V_{CE}$(sat) | $I_C$=6A, $I_B$=300mA | | 180 | 360 | mV |
| Base-to-Emitter Saturation Voltage | $V_{BE}$(sat) | $I_C$=6A, $I_B$=300mA | | | 1.2 | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C$=100μA, $I_E$=0A | 60 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C$=1mA, $R_{BE}$=∞ | 50 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E$=100μA, $I_C$=0A | 5 | | | V |
| Turn-ON Time | $t_{on}$ | See specified Test Circuit. | | 62 | | ns |
| Storage Time | $t_{stg}$ | See specified Test Circuit. | | 350 | | ns |
| Fall Time | $t_f$ | See specified Test Circuit. | | 25 | | ns |

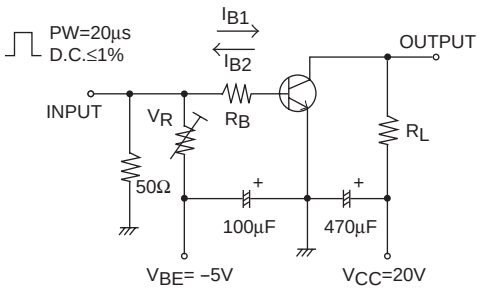
## Package Dimensions

unit : mm (typ)

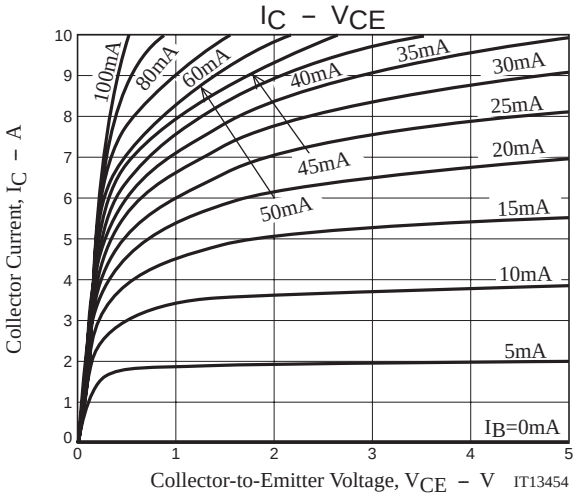
7508-002

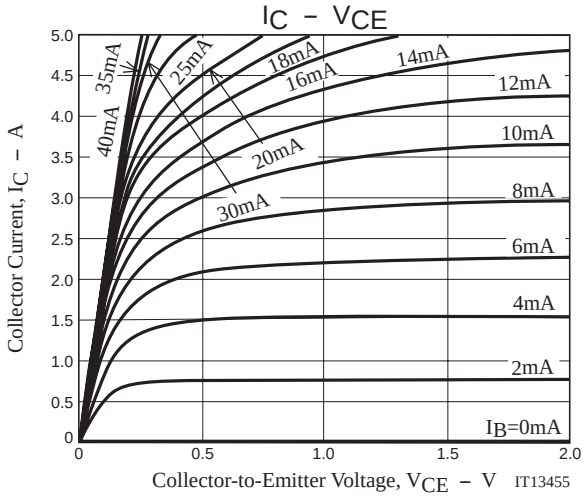


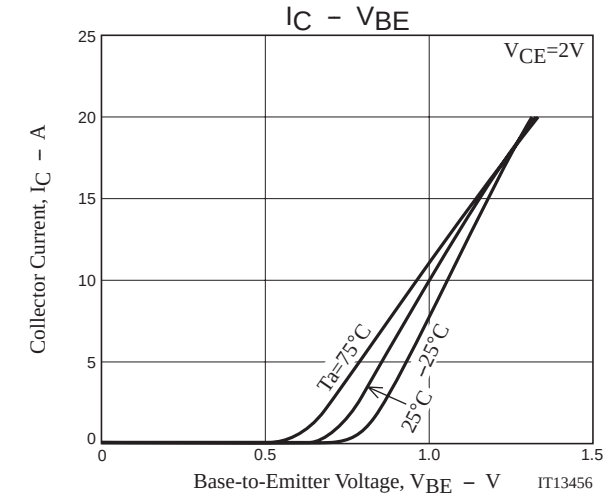

## Switching Time Test Circuit

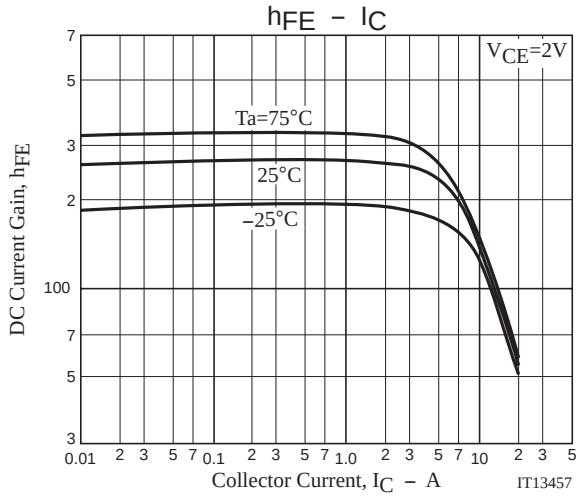


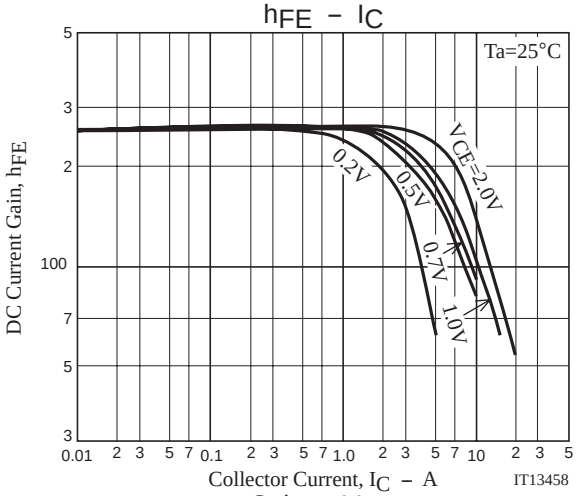

$I_C$=20$I_{B1}$= −20$I_{B2}$=5A

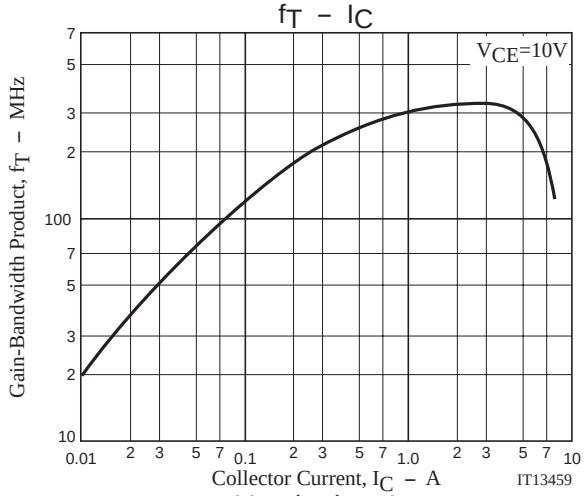


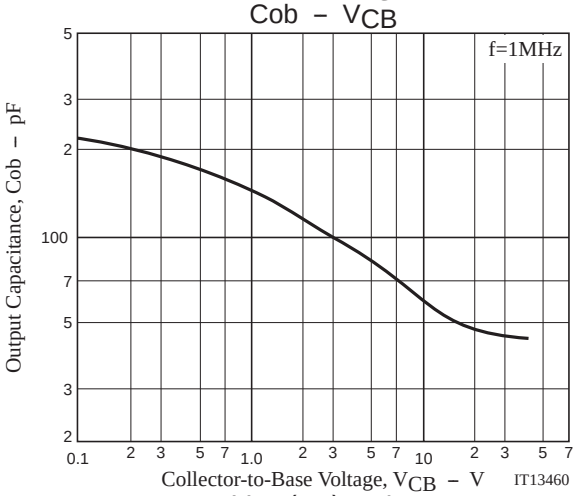



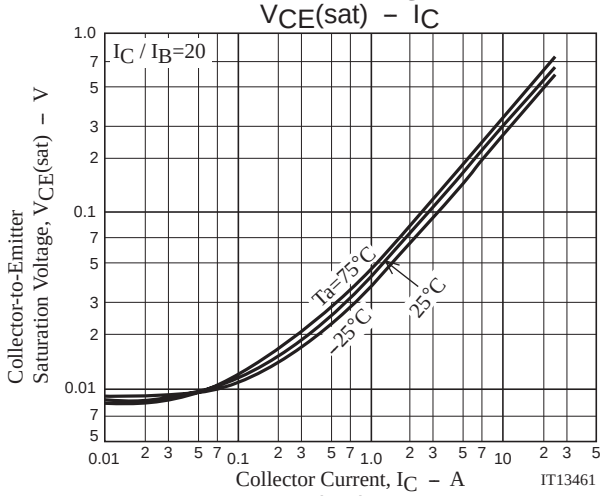


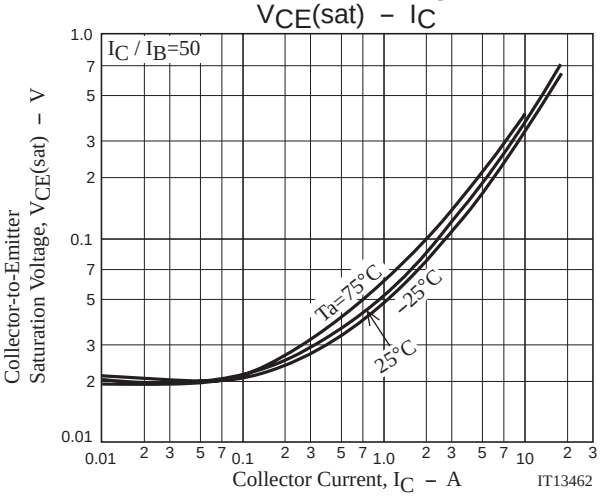



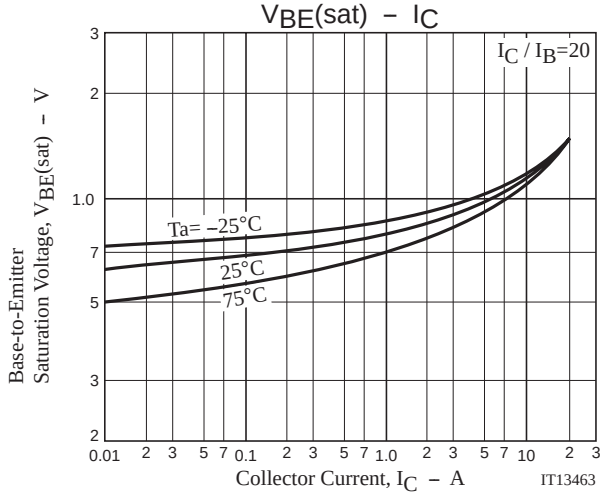



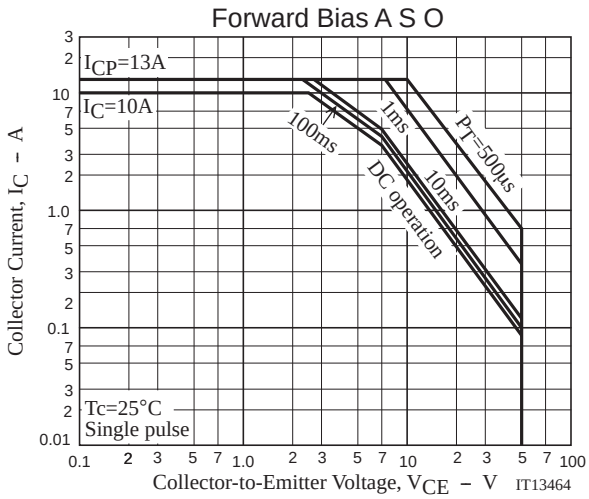



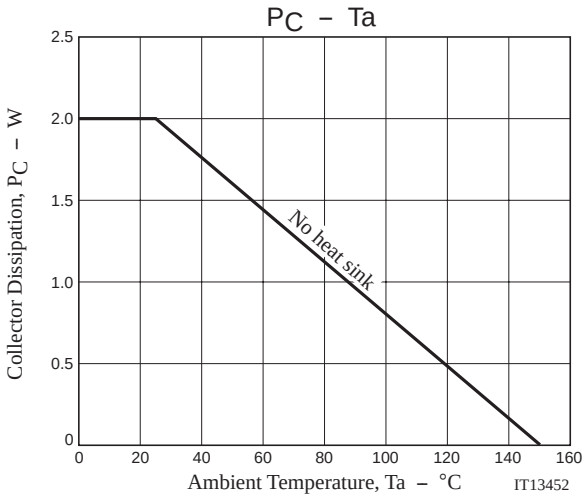



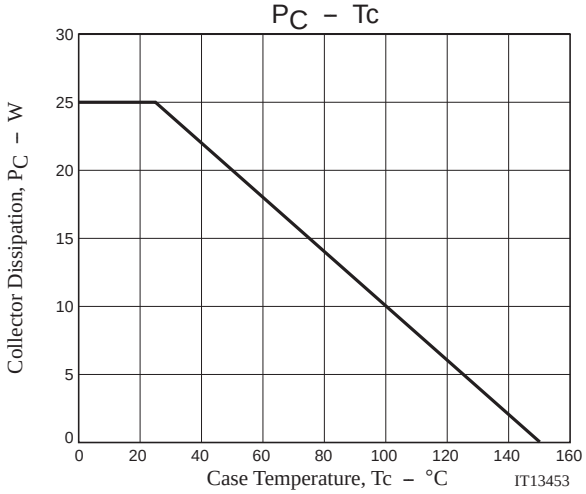



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