

T-33-09
T-33-19

**PNP -
TIP30
TIP30A
TIP30B
TIP30C**



T-33-09
T-33-19

FIGURE 1 — DC CURRENT GAIN

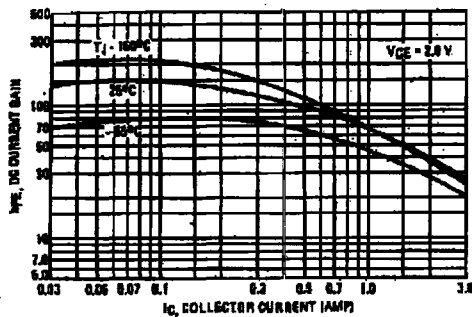


FIGURE 2 — TURN-OFF TIME

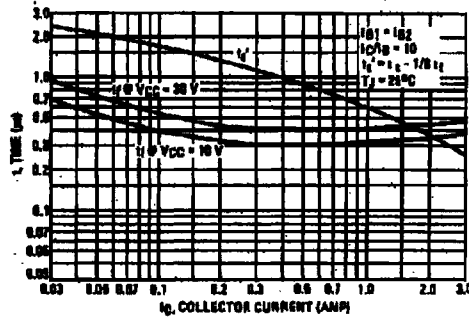


FIGURE 3 — SWITCHING TIME EQUIVALENT CIRCUIT

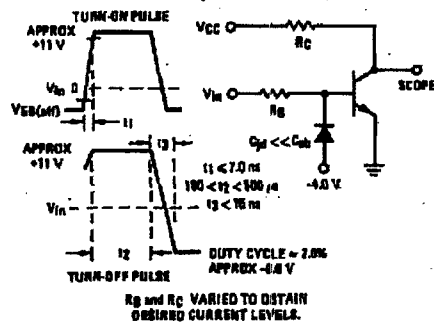


FIGURE 4 — TURN-ON TIME

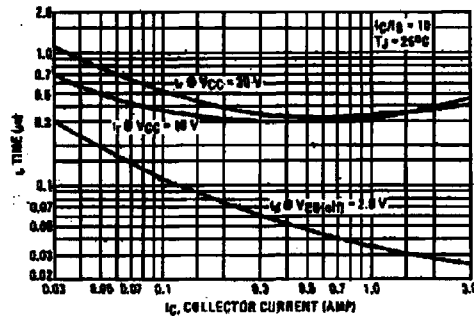
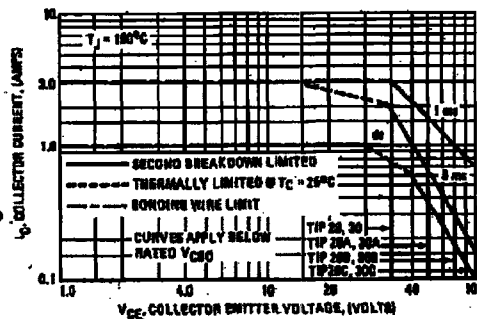


FIGURE 5 — ACTIVE REGION SAFE OPERATING AREA



There are two limitations on the power handling ability of a transistor: average junction temperature and second breakdown. Safe operating area curves indicate I_C - V_{CE} operation; i.e., the transistor must not be subjected to greater dissipation than the curves indicate.

The data of Figure 5 is based on $T_J(pk) = 150^\circ C$; T_C is variable depending on conditions. Second breakdown pulse limits are valid for duty cycles to 10% provided $T_J(pk) < 150^\circ C$. At high case temperatures, thermal limitations will reduce the power that can be handled to values less than the limitations imposed by second breakdown.