

Re: Collector resistance of power bjts

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"Eeyore" <rabbitsfriendsandrelations@xxxxxxxxxxxx> wrote in message
news:4579FDA5.C7735D53@xxxxxxxxxxxxxxxx

| I just happened to be curious about a typical value for the collector
resistance

| of a power bjt (such as in an audio amp) and to my surprise the data that
I

| had handy didn't have any curves for the output characteristic (Motorola
| Bipolar power data rev 6 – and I can't locate the other 2 data books I was
| looking for).

| Before I go trawling various web sites randomly, has anyone got any quick
| suggestions for where to look first ?

| Graham

Try looking at the Spice Models. The Early Voltage divided by the collector
current is the "collector resistance" ($R_o \sim V_{AF} / I_c$). There is a
considerable spread in the Early Voltage and it usually has to be determined
empirically. In addition NPNs usually have a higher Early Voltage than the
complimentary PNP but not always.

At 1 amp the collector resistance can be expected to be in the order of a few
ohms for some types to over several hundred ohms for others.

Dan Thomas

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