COLLECTOR FEEDBACK BIASING

Lecture-35

TDC PART -3
PAPER 6(GROUP B)
Chapter -6

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Collector Feedback Biasing

- This self biasing collector feedback configuration is another beta dependent biasing method which requires two resistors to provide the necessary DC bias for the transistor.
- The collector to base feedback configuration ensures that the transistor is always biased in the active region regardless of the value of Beta (β).

- The DC base bias voltage is derived from the collector voltage V_C, thus providing good stability.

Demerits

- If is large, a high. is necessary, which increases cost as well as precautions necessary while handling.
- If. is low, the reverse **bias** of the **collector**–base region is small, which limits the range of **collector** voltage swing that leaves the transistor in active mode.
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Properties

- the biasing voltage is derived from the voltage drop across the load resistor, R_L, if the load current increases there will be a larger voltage drop across R_L, and a corresponding reduced collector voltage, V_C.

- The opposite reaction will also occur when the transistors collector current reduces. Then this method of biasing is called self-biasing with the transistors stability using this type of feedback bias network being generally good for most amplifier designs.