The 2N131 is a PNP junction transistor intended primarily for use in audio or low radio frequency applications. The tinned flexible leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.

MECHANICAL DATA

CASE: Metal with insulating coating.
BASE: None (0.014" tinned flexible leads. Length: 1.5" min.
Spacing: 0.04" center-to-center)
TERMINAL CONNECTIONS: (Red Dot is adjacent to Lead 1)
  Lead 1 Collector
  Lead 2 Base
  Lead 3 Emitter
MOUNTING POSITION: Any

ELECTRICAL DATA

RATINGS - ABSOLUTE MAXIMUM VALUES:
  Collector Voltage (V_C) - 15 volts
  Peak Collector Voltage (V_C) @
  Collector Current - 10 ma.
  Collector Dissipation *
  Emitter Current 10 ma.
  Ambient Temperature 85 °C

AVERAGE CHARACTERISTICS: (at 27°C)
  Collector Voltage - 6 volts
  Emitter Current 1.0 ma.
  Collector Resistance 2.0 meg.
  Base Resistance 700 ohms
  Emitter Resistance 25 ohms
  Base Current Amplification Factor 45
  Cut-off Current (approx.) 6 µa.
  Noise Factor (max.) 22 db

AVERAGE CHARACTERISTICS - COMMON Emitter: (at 27°C)
  Collector Voltage - 1.5 volts
  Emitter Current 0.5 1.0 ma.
  Input Resistance 2400 1500 ohms
  Load Resistance 20,000 20,000 ohms
  Power Gain (Matched Input) 39 41 db

AVERAGE CHARACTERISTICS - COMMON COLLECTOR: (at 27°C)
  Collector Voltage - 6 volts
  Emitter Current 1.0 ma.
  Input Resistance 20.06 meg.
  Load Resistance 20,000 ohms
  Power Gain (Matched Input) 15 db

AVERAGE CHARACTERISTICS - COMMON BASE: (at 27°C)
  Collector Voltage - 6 volts
  Emitter Current 1.0 ma.
  Input Resistance 70 ohms
  Load Resistance 0.1 meg.
  Power Gain (Matched Input) 31 db

This is the maximum operating or storage temperature recommended.
* Measured under conditions for grounded emitter operation at Vcb = 2.5 volts for a 1 cycle bandwidth at 1000 cycles.
** Higher input impedances, without appreciable loss in gain, can be achieved by operating at lowered collector current.
1 This is a function of maximum ambient temperature (T_A) expected. It is approximately equal to 1.4 (85 °C-T_A) milliwatts in free air and to 3 (85 °C-T_A) when the case is clipped to the chassis.
3 In circuits stabilized for I_c or I_e and which do not have critical distortion requirements, absolute maximum peak voltage is 60 volts.
4 Collector voltage Vce at which I_c rises to 2 ma. in common emitter circuit with base lead connected directly to emitter lead. Ambient temperature = 25°C.

Tentative Data

Raytheon Manufacturing Company

Receiving and Cathode Ray Tube Operations

September 1, 1955
Newton 58, Mass.
GROUNDED BASE

Typical Collector Characteristics

**Typical Collector Characteristics**

Collector to Base Voltage ($V_{cb}$) - Volts

- Collector Current ($I_C$) - Ma.

- Collector to Emitter Voltage ($V_{ce}$)

- This family is a function of $1-\alpha$ and thus changes appreciably with small changes in $\alpha$. 

RAYTHEON MANUFACTURING COMPANY
RECEIVING AND CATHODE RAY TUBE OPERATIONS

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TYPICAL CHARACTERISTICS AS
A FUNCTION OF JUNCTION TEMPERATURE

Percent of Value at 27°C

Temperature - Degrees Centigrade

Arrows refer to positive electrode current flow.