The 2N130 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 (Vc)  -22 volts
Peak Collector Voltage (Vd)  -44 volts
Collector Current  -10 ma.
Collector Dissipation *  10 ma.
Emitter Current  85 °C
Ambient Temperature ■

AVERAGE CHARACTERISTICS: (at 27°C)

Collector Voltage  -6 volts
Emitter Current  1.0 ma.
Collector Resistance  2.0 meg.
Base Resistance  350 ohms
Emitter Resistance  25 ohms
Base Current Amplification Factor  22
Cut-off Current (approx.)  6 μa.
Noise Factor (max.)  25 db.

AVERAGE CHARACTERISTICS - COMMON EMITTER: (at 27°C)

Collector Voltage  1.5 volts
Emitter Current  0.5 ma.
Input Resistance  1400 ohms
Base Resistance  800 ohms
Load Resistance  20,000 ohms
Power Gain (Matched Input)  37

AVERAGE CHARACTERISTICS - COMMON COLLECTOR: (at 27°C)

Collector Voltage  6 volts
Emitter Current  1.0 ma.
Input Resistance  0.35 meg.
Load Resistance  20,000 ohms
Power Gain (Matched Input)  19 db.

AVERAGE CHARACTERISTICS - COMMON BASE: (at 27°C)

Collector Voltage  6 volts
Emitter Current  1.0 ma.
Input Resistance  50 ohms
Load Resistance  20,000 ohms
Power Gain (Matched Input)  32 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.
* This is a function of maximum ambient temperature (TA) expected. It is approximately equal to 1.4 (85°C - TA) milliwatts in free air and to 3 (85°C - TA) when the case is clipped to the chassis.
◇ Collector Voltage Vc at which Ic rises to 2 ma. in common emitter circuit with base lead connected directly to emitter lead. Ambient Temperature 25°C.
⊙ In circuits stabilized for lc or le and which do not have critical distortion requirements, absolute maximum peak voltage is 75 volts.

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

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GERMANIUM TRANSISTOR

TYPICAL CHARACTERISTICS AS
A FUNCTION OF JUNCTION TEMPERATURE

Temperature - Degrees Centigrade

Percent of Value at 27°C

-60 -40 -20 0 20 40 60

Emitter

\[ V_{ce} \]

Collector

\[ V_{cb} \]

Base

\[ V_{eb} \]

\[ i_e \]

\[ i_c \]

\[ i_b \]

Arrows refer to positive electrode current flow.

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