2N166

Outline Drawing No. 31

The 2N166 is a rate grown NPN germanium transistor intended for use in high frequency circuits by amateurs, hobbyists, and experimenters. The 2N166 can be used in any of the many published circuits where a low voltage, high frequency transistor is necessary, such as for regenerative receivers, high frequency oscillators, etc. If you desire to use the 2N166 NPN transistor in a circuit showing a PNP type transistor, it is only necessary to change the connections to the power supply.

SPECIFICATIONS

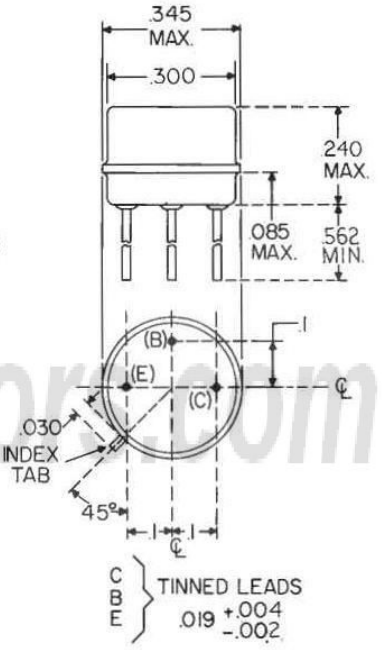
ABSOLUTE MAXIMUM RATINGS:

Voltages		
Collector to Emitter	V_{CE}	6 volts
Collector Current	I_C	20 ma
Power		
Collector Dissipation @ 25°C*	P_{CM}	25 mw
Temperature Range		
Operating and Storage	T_A-T_{STG}	−55 to 50 °C

ELECTRICAL CHARACTERISTICS: (25°C)**

High Frequency Characteristics		
(I_E = 1 ma; V_{CE} = 5v; f = 455 KC except as noted)		
Input Impedance (Common Emitter)	Z_i	800 ohms
Output Impedance (Common Emitter)	Z_o	15 K ohms
Collector to Base Capacitance (f = 1 mc)	C_{ob}	3 μμf
Frequency Cutoff (V_{CB} = 5V)	f_{ab}	5 mc
Power Gain (Common Emitter)	G_e	24 db
Low Frequency Characteristics		
(I_E = 1 ma; V_{CE} = 5v; f = 270 cps)		
Input Impedance	h_{ib}	55 ohms
Voltage Feedback Ratio	h_{rb}	4 x 10^{-4}
Current Gain	h_{fb}	.97
Output Admittance	h_{ob}	.3 x 10^{-6} μmhos
Common Emitter Base Current Gain	h_{fe}	32
Cutoff Characteristics		
Collector Cutoff Current (V_{CB} = 5v)	I_{CO}	5 μa max

*Derate 1 mw/°C increase in ambient temperature.
**All values are typical unless indicated as a min. or max.



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