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NTE ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE23
Silicon NPN Transistor
Ultra High Frequency Amp

Description:

The NTE23 is suitable for a low noise amplifier in the VHF to UHF band.

Features:

- Low Noise Figure: NF 3.0dB Typ. @ f = 500MHz
- High Power Gain: G_{pe} 15dB Typ. @ f = 500MHz
- High Cutoff Frequency: f_T = 2.0GHz Typ

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 30V
Collector–Emitter Voltage, V_{CEO} 14V
Emitter–Base Voltage, V_{EBO} 3.0V
Collector Current, I_C 50mA
Total Power Dissipation, P_T 250mW
Junction Temperatur, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 15V, I_E = 0	–	–	0.1	µA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 2V, I_C = 0	–	–	0.1	µA
DC Current Gain	h_{FE}	V_{CE} = 10V, I_C = 10mA	25	80	200	–
Gain–Bandwidth Product	f_T	V_{CE} = 10V, I_C = 10mA	1.5	2.0	–	GHz
Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	–	0.75	1.1	pF
Maximum Available Power Gain	G_{pe}	V_{CE} = 10V, I_C = 10mA, f = 500MHz	13	15	–	dB
Noise Figure	NF	V_{CE} = 10V, I_C = 3mA, f = 500MHz	–	3.0	4.0	dB

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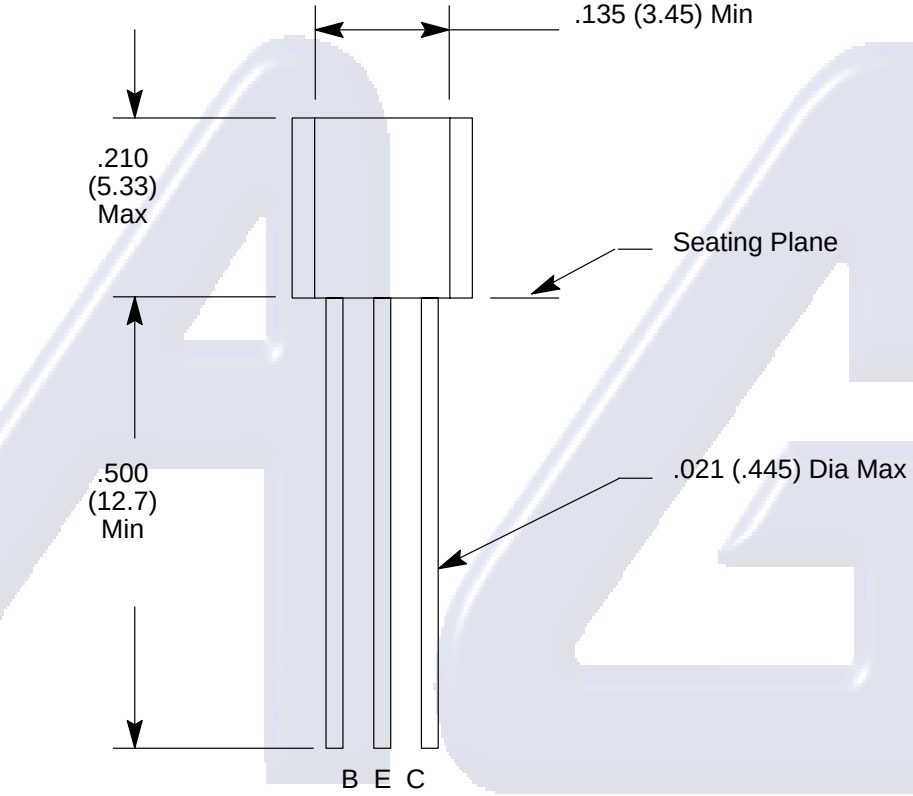

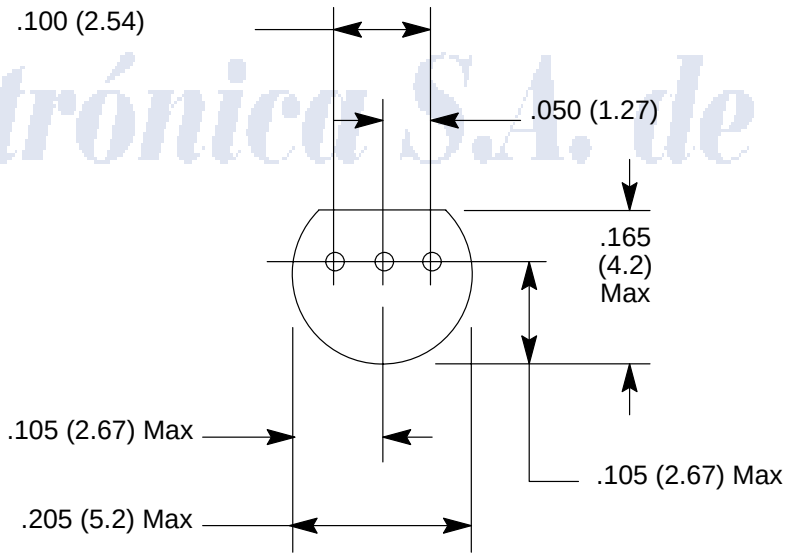

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