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

NTE229
Silicon NPN Transistor
VHF Oscillator, Mixer, IF Amp

Absolute Maximum Ratings:

Collector–Emitter Voltage, V_{CEO} 30V
Collector–Base Voltage, V_{CBO} 30V
Emitter–Base Voltage, V_{EBO} 3V
Collector Current, I_C 50mA
Total Power Dissipation (T_A = +25°C), P_T 425mW
Derate above +25°C . . . . . 5mW/°C
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C
Lead Temperature (During Soldering, 1/16” ±1/32” from case, 10sec), T_L . . . . . +230°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E = 0	30	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 100μA, I_C = 0	3	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V, I_E = 0	–	–	200	nA
DC Current Gain	h_{FE}	I_C = 5mA, V_{CE} = 10V	30	–	225	
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 1mA, I_B = 0	30	–	–	V
Base–Emitter ON Voltage	$V_{BE(on)}$	I_C = 5mA, V_{CE} = 10V	–	–	0.85	V
Current Gain–Bandwidth Product	f_T	I_C = 5mA, V_{CE} = 10V, f = 100MHz	500	–	–	MHz
Power Gain	G_{pe}	V_{CC} = 12V, V_{BB} = 2.5V, f = 45MHz	28	–	–	dB
Collector–Base Capacitance	C_{cb}	I_E = 0, V_{CB} = 15V, f = 1MHz	–	–	0.4	pF
Noise Figure	NF	V_{CC} = 12V, f = 45MHz	–	–	6	dB

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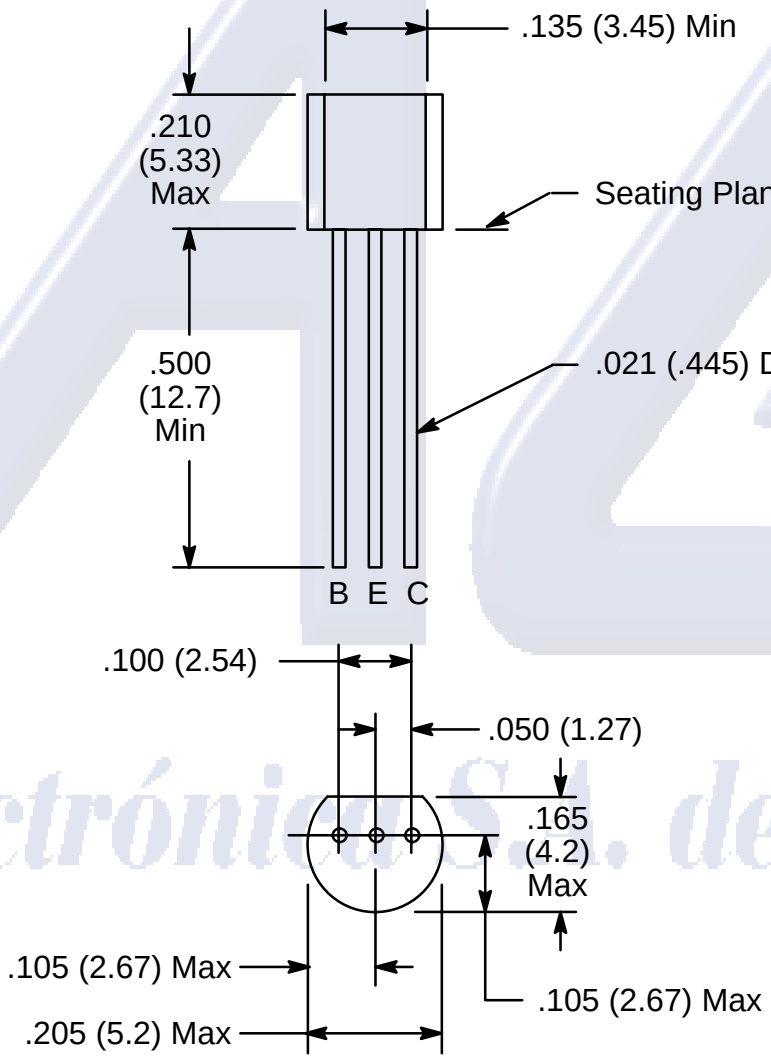

Electrónica S.A. de C.V.

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