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

NTE313
Silicon NPN Transistor
High Gain, Low Noise,
VHF Mixer and VHF/RF Amp

Description:

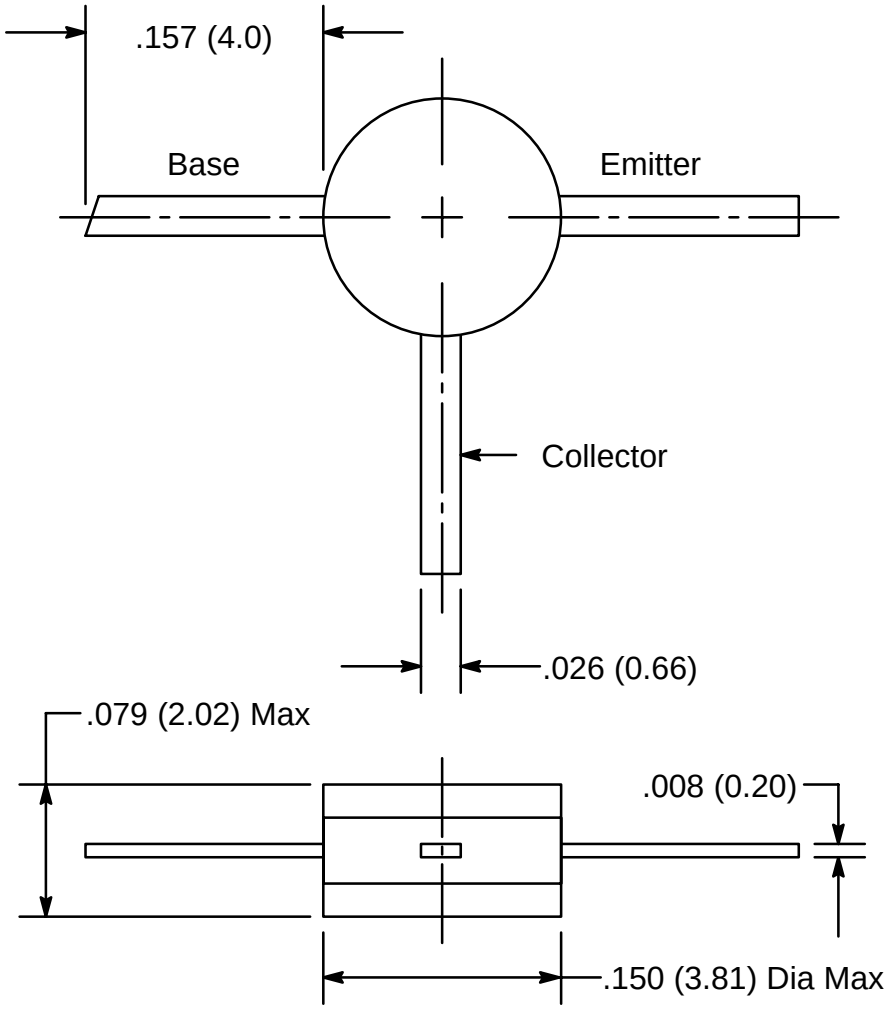
The NTE 313 is a silicon NPN transistor specifically designed for VHF mixer and VHF/RF amplifier applications. This device features high power gain, low noise, and excellent forward AGC characteristics.

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

Collector–Base Voltage, V_{CBO} 30V
Collector–Emitter Voltage, V_{CEO} 30V
Emitter–Base Voltage, V_{EBO} 4V
Collector Current, I_C 20mA
Total Power Dissipation, P_T 150mW
Maximum Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –60° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 20V, I_E = 0	–	–	0.2	μA
DC Current Gain	h_{FE}	V_{CE} = 10V, I_C = 2mA	20	60	200	
Current–Gain Bandwidth Product	f_T	V_{CE} = 10V, I_E = –2mA	400	530	–	MHz
Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	–	0.5	1.0	pF
Noise Figure	NF	I_E = –2mA, f = 200MHz	–	2.5	3.3	dB
Power Gain	PG	I_E = –2mA, f = 200MHz	20	23	–	dB
AGC Current	I_{AGC}	PG = –30dB	–	–9	–11	mA


.157 (4.0)
Base
Emitter
Collector
.026 (0.66)
.079 (2.02) Max
.008 (0.20)
.150 (3.81) Dia Max