NTE ELECTRONICS, INC.

NTE102A (PNP) & NTE103A (NPN)
Germanium Complementary Transistors
Medium Power Amplifier

Description:

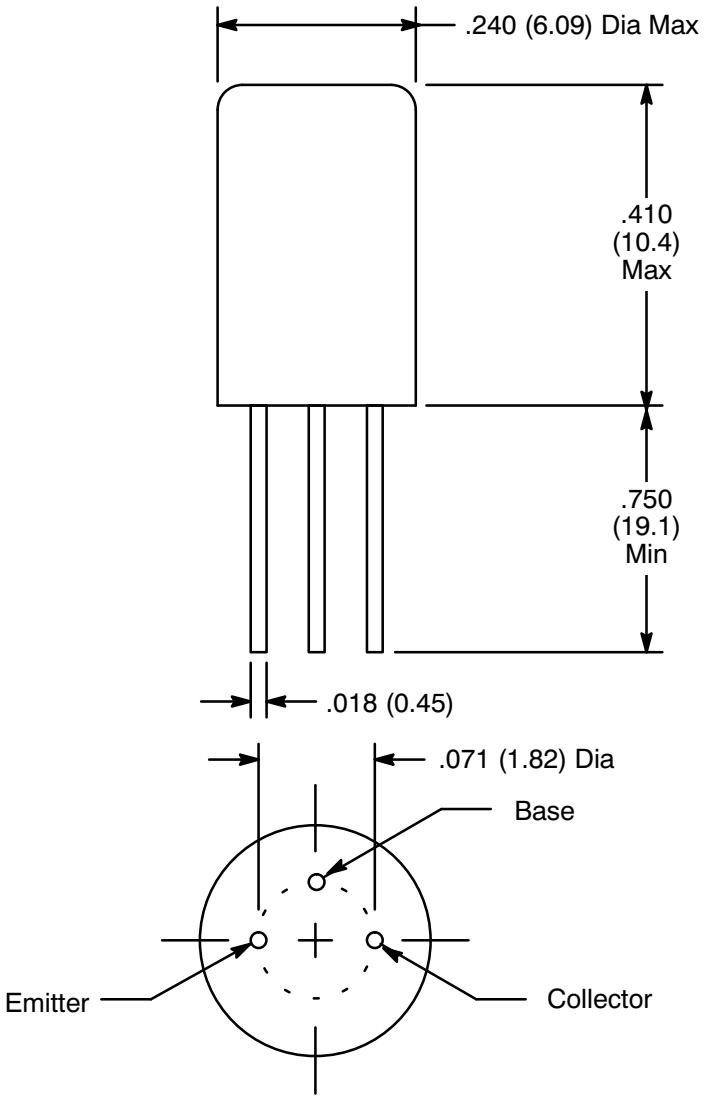
The NTE102A (PNP) and NTE103A (NPN) are Germanium complementary transistors in a TO1 type package designed for use as a medium power amplifier.

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

Collector−Base Voltage, V_{CBO} 32V
Emitter−Base Voltage, V_{EBO} 10V
Collector Current, I_C 1A
Power Dissipation, P_C 650mW
Operating Junction Temperature, T_J . . . . . +90°C
Storage Temperature Range, T_{stg} . . . . . −55° to +90°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector−Base Voltage	V_{CBO}	I_C = 200μA, I_E = 0	32	−	−	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 10V, I_E = 0	−	−	25	μA
DC Current Gain	h_{FE1}	V_{CB} = 0, I_E = 50mA	63	−	295	
	h_{FE2}	V_{CB} = 0, I_E = 300mA	69	−	273	
Common−Emitter Cutoff Frequency	$f_{\alpha e}$	V_{CB} = 2V, I_E = 10mA	10	−	−	kHz
Collector−Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 500mA, I_B = 50mA	−	0.17	−	V
Noise Figure	NF	V_{CB} = 5V, I_E = 5mA, f = 1kHz	−	−	25	dB


.240 (6.09) Dia Max
.410
(10.4)
Max
.750
(19.1)
Min
.018 (0.45)
.071 (1.82) Dia
Base
Emitter
Collector