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

NTE315
Silicon NPN Transistor, Medium Power Amp

Features:

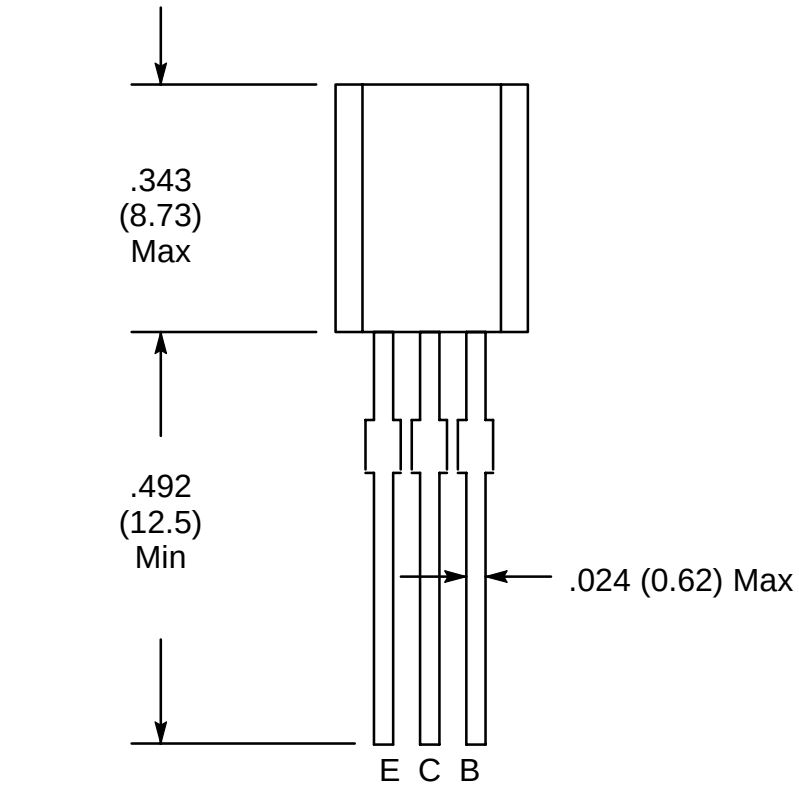
- AF – HF Medium Power Amplifier

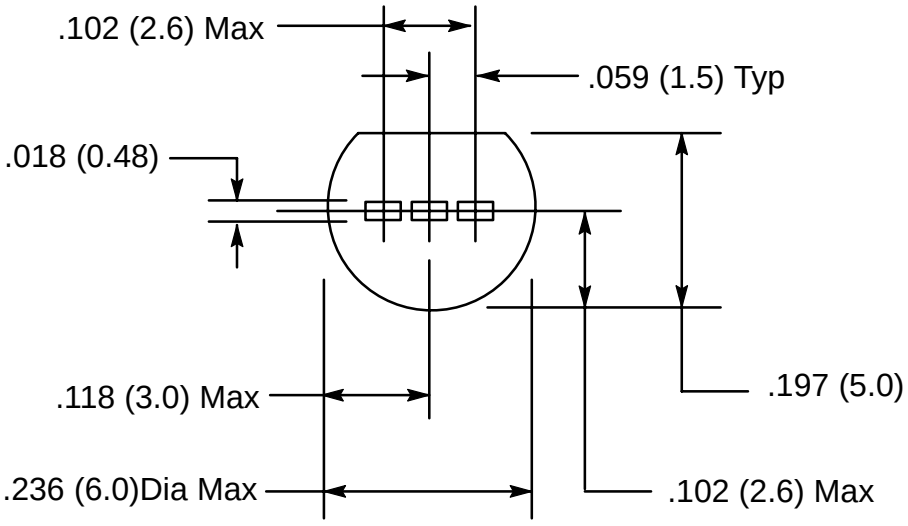
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–to–Base Voltage, V_{CBO} 100V
Collector–to–Emitter Voltage, V_{CEO} 50V
Emitter–to–Base Voltage, V_{EBO} 6V
Collector Current, I_C 1A
Base Current. I_B 0.5A
Collector Power Dissipation, P_C 750mW
Junction Temperature, T_J . . . . . +120°C
Storage Temperature Range, T_{stg} . . . . . –50° to +150°C
Thermal Resistance, Junction–to–Ambient, R_{thJA} . . . . . 126°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 25V, I_E = 0	–	–	0.2	µA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 6V, I_C = 0	–	–	0.2	µA
Base to Emitter Voltage	V_{BE}	V_{CE} = 6V, I_C = 5mA	–	–	0.7	V
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 2mA	50	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 50mA	–	–	0.3	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 1A, I_B = 50mA	–	–	1.0	V
DC Current Gain	h_{FE1}	V_{CE} = 2V, I_C = 100mA	199	–	649	
	h_{FE2}	V_{CE} = 1V, I_C = 1A	70	–	–	
Small Signal Current Gain	$\|h_{fe}\|$	V_{CB} = 2V, I_E = –10mA, f = 10MH$_Z$	–	18	–	dB
Collector Output Capacitance	C_C	V_{CB} = 10V, I_E = 0, f = 1MH$_Z$	–	16	40	pf


.343
(8.73)
Max
.492
(12.5)
Min
.024 (0.62) Max
E C B


.102 (2.6) Max
.059 (1.5) Typ
.018 (0.48)
.197 (5.0)
.118 (3.0) Max
.236 (6.0)Dia Max
.102 (2.6) Max