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

NTE2504
Silicon NPN Transistor
High Gain Audio Amplifier

Features:

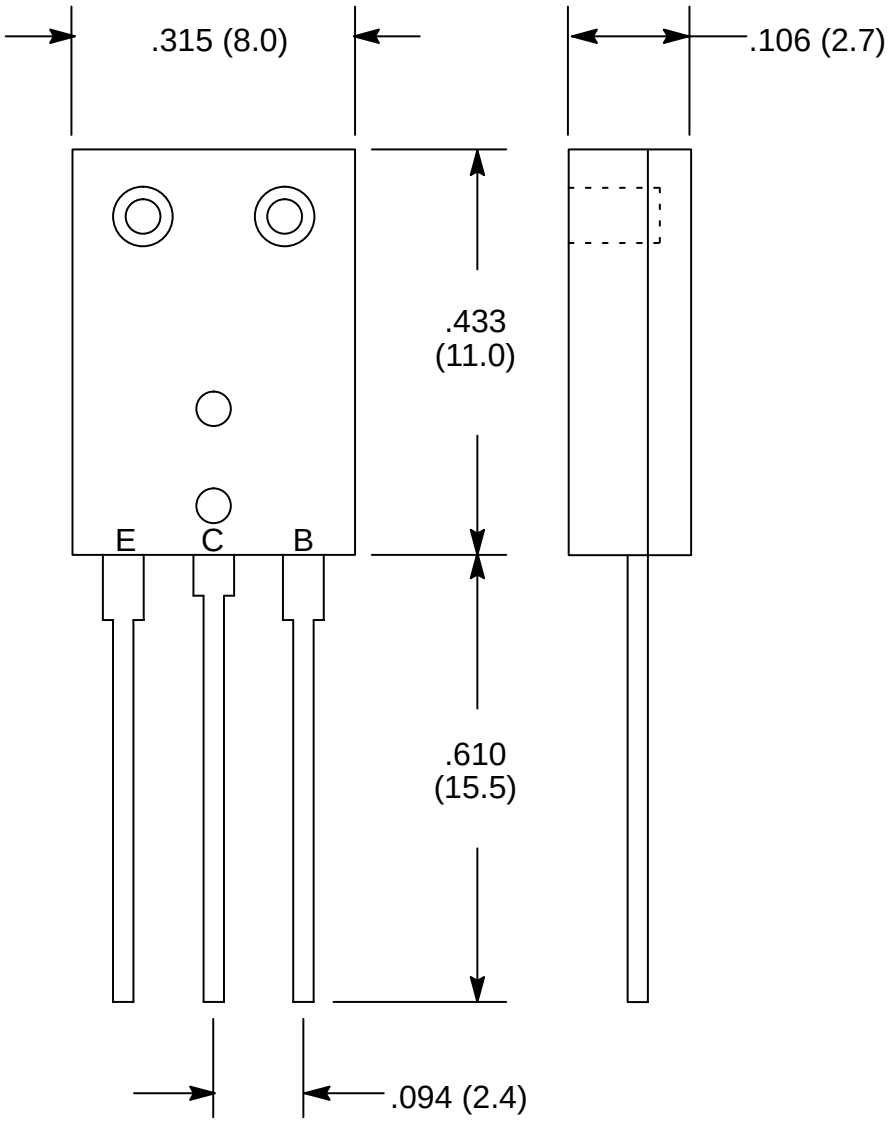
- Large Current Capacity (I_C = 2A)
- Adoption of MBIT Process
- High DC Current Gain: h_{FE} = 800 to 3200
- Low Collector–Emitter Saturation Voltage: $V_{CE(sat)} <$ 0.5V

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

Collector–Base Voltage, V_{CBO} 30V
Collector–Emitter Voltage, V_{CEO} 25V
Emitter–Base Voltage, V_{EBO} 15V
Collector Current, I_C
  Continuous 2A
  Peak 4A
Collector Dissipation, P_C 1.2W
Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° 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	–	–	0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 10V, I_C = 0	–	–	0.1	μA
DC Current Gain	h_{FE}	V_{CE} = 5V, I_C = 500mA	800	1500	3200	
Current Gain–Bandwidth Product	f_T	V_{CE} = 10V, I_C = 50mA	–	260	–	MHz
Output Capacitance	C_{ob}	V_{CE} = 10V, f = 1MHz	–	27	–	pF
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1A, I_B = 20mA	–	0.15	0.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 1A, I_B = 20mA	–	0.85	1.2	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 10A, I_E = 0	30	–	–	V


.315 (8.0)
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.433
(11.0)
E
C
B
.610
(15.5)
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