ELECTRONICS, INC.
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NTE186A (NPN) & NTE187A (PNP)
Silicon Complementary Transistors
Medium Power Audio Amplifier

Features:

- 5W Output in Complementary Pair

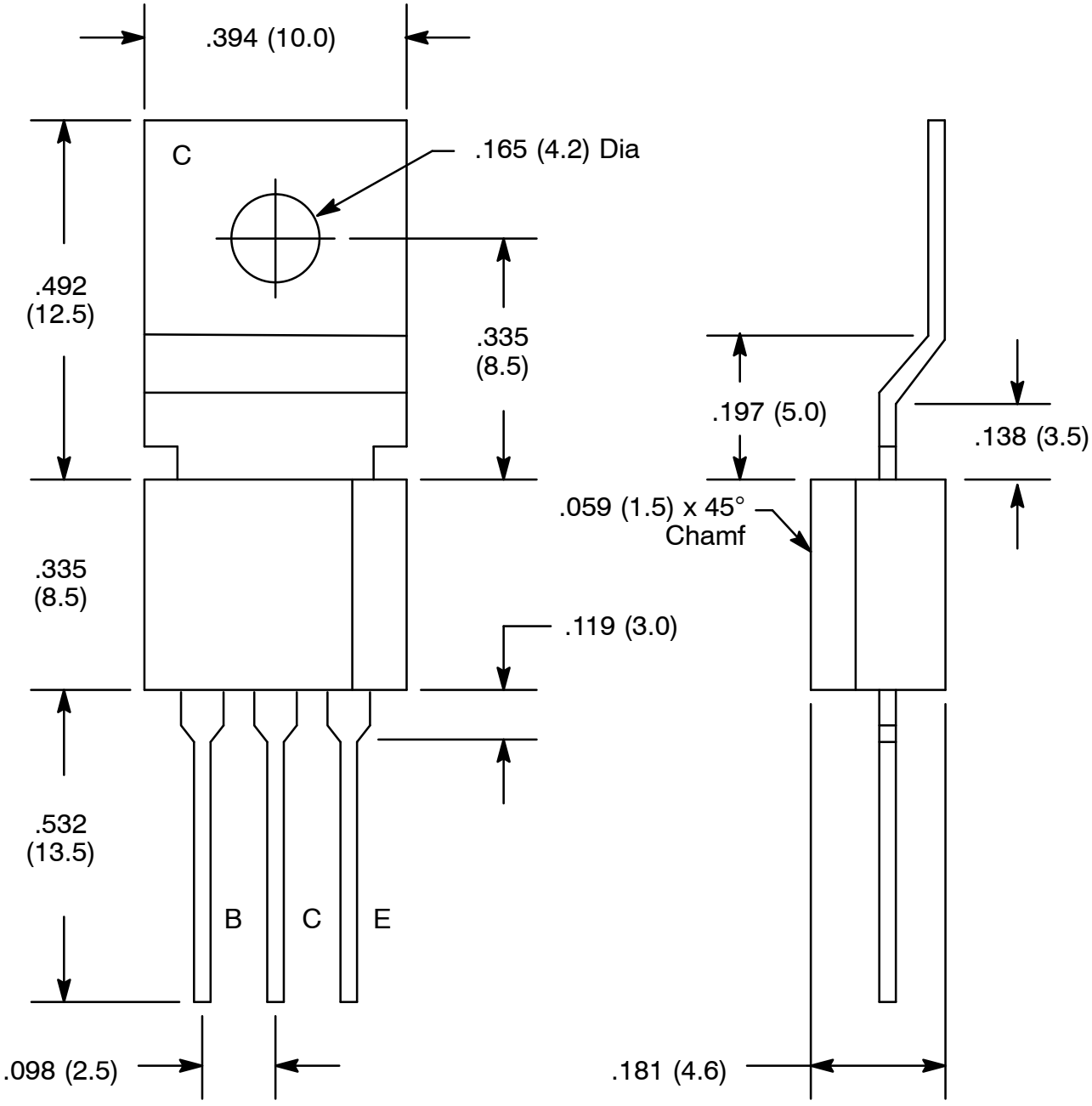
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 50V
Collector–Emitter Voltage, V_{CEO} 40V
Emitter–Base Voltage, V_{EBO} 5V
Peak Collector Current, I_{CP} 3A
Base Current, I_B 600mA
Collector Power Dissipation (T_C = +25°C), P_C 10W
Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 1mA, I_E = 0	50	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	40	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 20V, I_E = 0	–	–	1	μA
	I_{CEO}	V_{CE} = 12V, I_B = 0	–	–	100	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0	–	–	100	μA
DC Current Gain	h_{FE}	V_{CE} = 5V, I_C = 1A	50	120	220	
Transition Frequency	f_T	V_{CE} = 5V, I_C = 500mA	–	150	–	MHz
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 2A, I_B = 200mA	–	–	1.5	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 2A, I_B = 200mA	–	0.4	1.0	V
Collector Output Capacitance	C_{ob}	V_{CB} = 5V, I_E = 0, f = 1MHz	–	50	–	pF

Rev. 4–13


.394 (10.0)
C
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.492
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B
C
E
.098 (2.5)
.197 (5.0)
.138 (3.5)
.059 (1.5) x 45°
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.181 (4.6)