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NTE ELECTRONICS, INC.
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NTE2331
Silicon NPN Transistor
Color TV Horizontal Deflection Output w/Damper Diode

Applications:
- Color TV Horizontal Deflection Output
- Color Display Horizontal Deflection Output

Features:
- High Speed (t_f = 100nsec)
- High Breakdown Voltage (V_{CBO} = 1500V)
- High Reliability
- On–Chip Damper Diode

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

Collector–Base Voltage, V_{CBO} 1500V
Collector–Emitter Voltage, V_{CEO} 800V
Emitter–Base Voltage, V_{EBO} 6V
Collector Current, I_C
  Continous 6A
  Peak 20A
Collector Dissipation (T_C = +25°C), P_C 60W
Operating 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_{CES}	V_{CE} = 1500V	–	–	1.0	mA
	I_{CBO}	V_{CB} = 800V	–	–	10	μA
Collector Sustain Voltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0	800	–	–	V
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V	40	–	130	mA
Saturation Voltage Collector to Emitter	$V_{CE(sat)}$	I_C = 5A, I_B = 1.0A	–	–	5	V
Saturation Voltage Base to Emitter	$V_{BE(sat)}$	I_C = 5A, I_B = 1.0A	–	–	1.5	V

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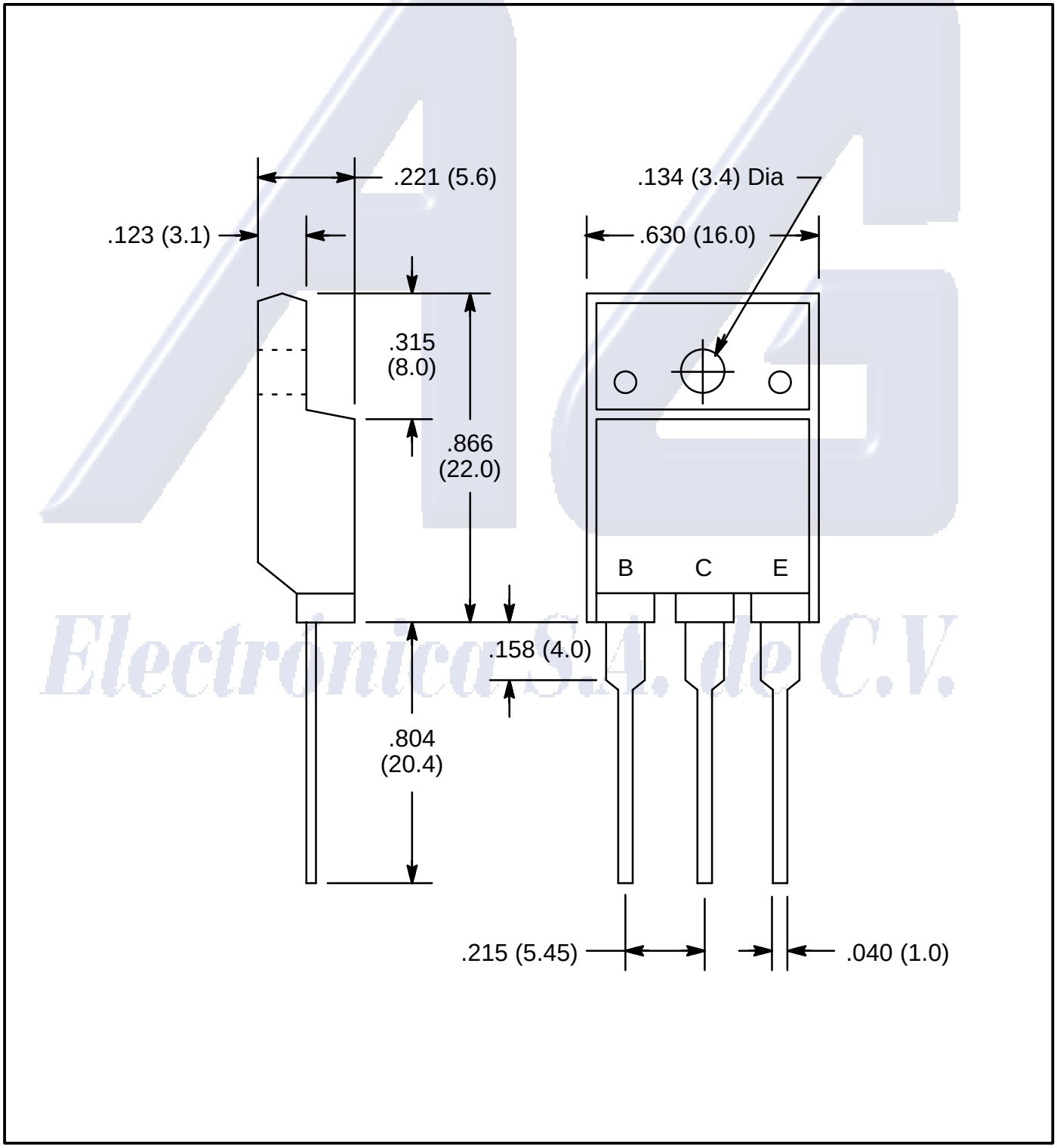
Electrical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
DC Current Gain	h_{FE1}	V_{CE} = 5V, I_C = 1A	8	–	–	
	h_{FE2}	V_{CE} = 5V, I_C = 5A	5	–	10	
Diode Forward Voltage	V_F	I_{EC} = 6A	–	–	2	V
Fall Time	t_f	I_C = 4A, I_{B1} = 0.8A, I_{B2} = 1.6A	–	0.1	0.3	µs



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