ELECTRONICS, INC.
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NTE2310
Silicon NPN Transistor
High Voltage, High Speed Switch

Description:

The NTE2310 is a silicon multiepitaxial mesa NPN transistor in a TO218 type package designed for use in high voltage, fast switching industrial applications.

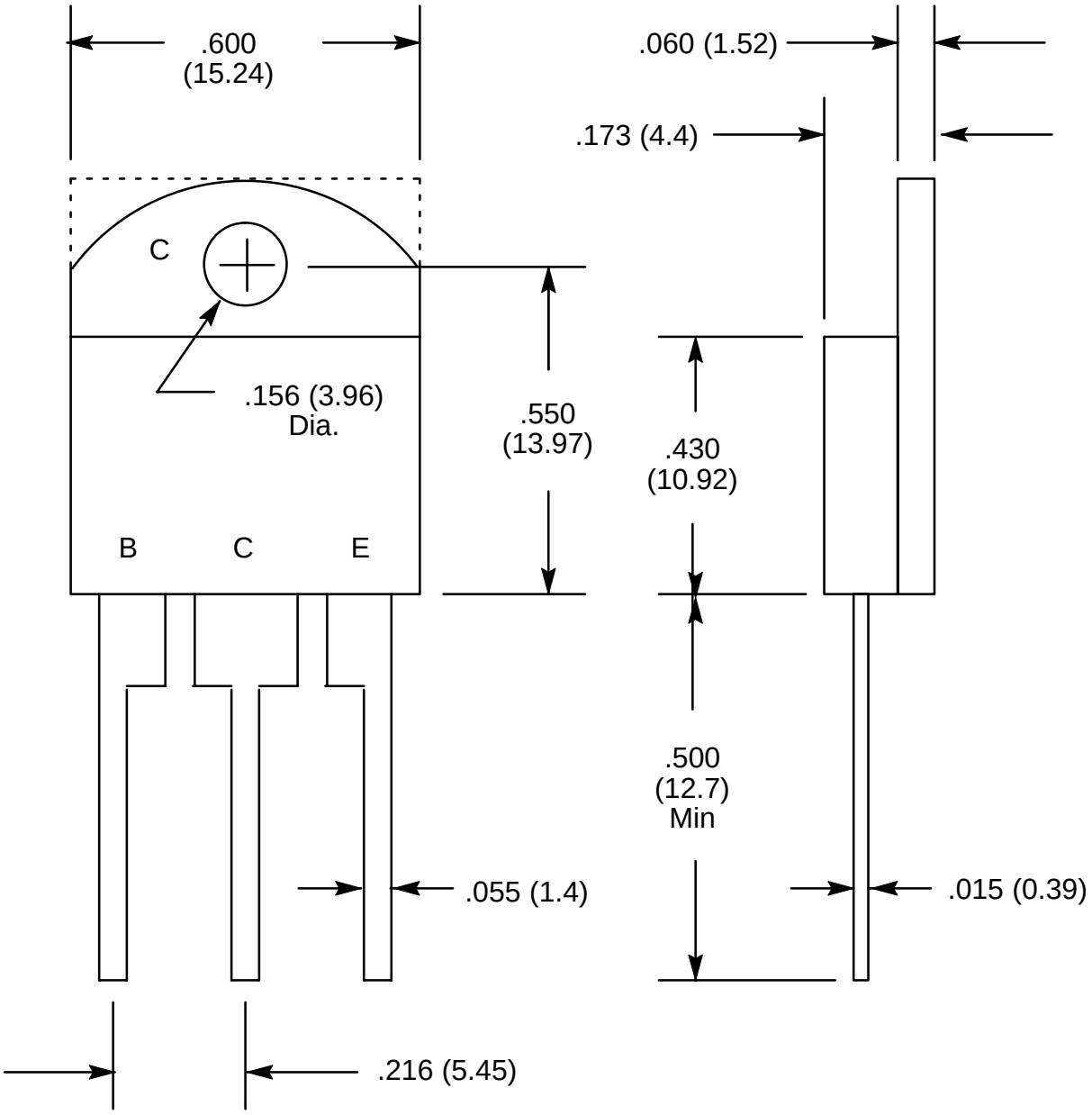
Absolute Maximum Ratings:

Collector–Emitter Voltage (V_{BE} = 0), V_{CES} 1000V
Collector–Emitter Voltage (I_B = 0), V_{CEO} 450V
Collector Current, I_C
  Continuous 8A
  Peak ($t_p \le 2$ms) 20A
Base Current, I_B
  Continuous 4A
  Peak ($t_p \le 2$ms) 6A
Power Dissipation (T_C = +25°C), P_D 125W
Operating Junction Temperature, T_J . . . . . +175°C
Storage Temperature Range, T_{stg} . . . . . –65° to +175°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 1.2°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 100mA, L = 25mH, Note 1	400	–	–	V
Collector Cutoff Current	I_{CES}	V_{CE} = 1000V, V_{BE} = 0	–	–	1	mA
		V_{CE} = 1000V, V_{BE} = 0, T_C = +125°C	–	–	3	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 9V, I_C = 0	–	–	10	mA
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 6A, I_B = 1.2A, Note 1	–	–	1.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 6A, I_B = 1.2A, Note 1	–	–	1.5	V
Turn–On Time	t_{on}	I_C = 6A, I_{B1} = 1.2A, I_{B2} = 1.2A	–	–	1	µs
Storage Time	t_s		–	–	4	µs
Fall Time	t_f		–	–	0.8	µs

Note 1. Pulse Test: Pulse Width = 300µs, Duty Cycle = 1.5%.



NOTE: Dotted line indicates that case may have square corners