ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

NTE2317
Silicon NPN Transistor
High Voltage Fast Switching Power Darlington

Description:

The NTE2317 is a multiepitaxial bipolar NPN transistor in a monolithic Darlington configuration mounted in a TO218 type package designed for use in automotive ignition applications and inverter circuits for motor controls. Controlled performances in the linear region make this device particularly suitable for car ignitions where current limiting is achieved desaturing the darlington.

Features:

- High Performance Electronic Ignition Darlington
- High Ruggedness

Applications:

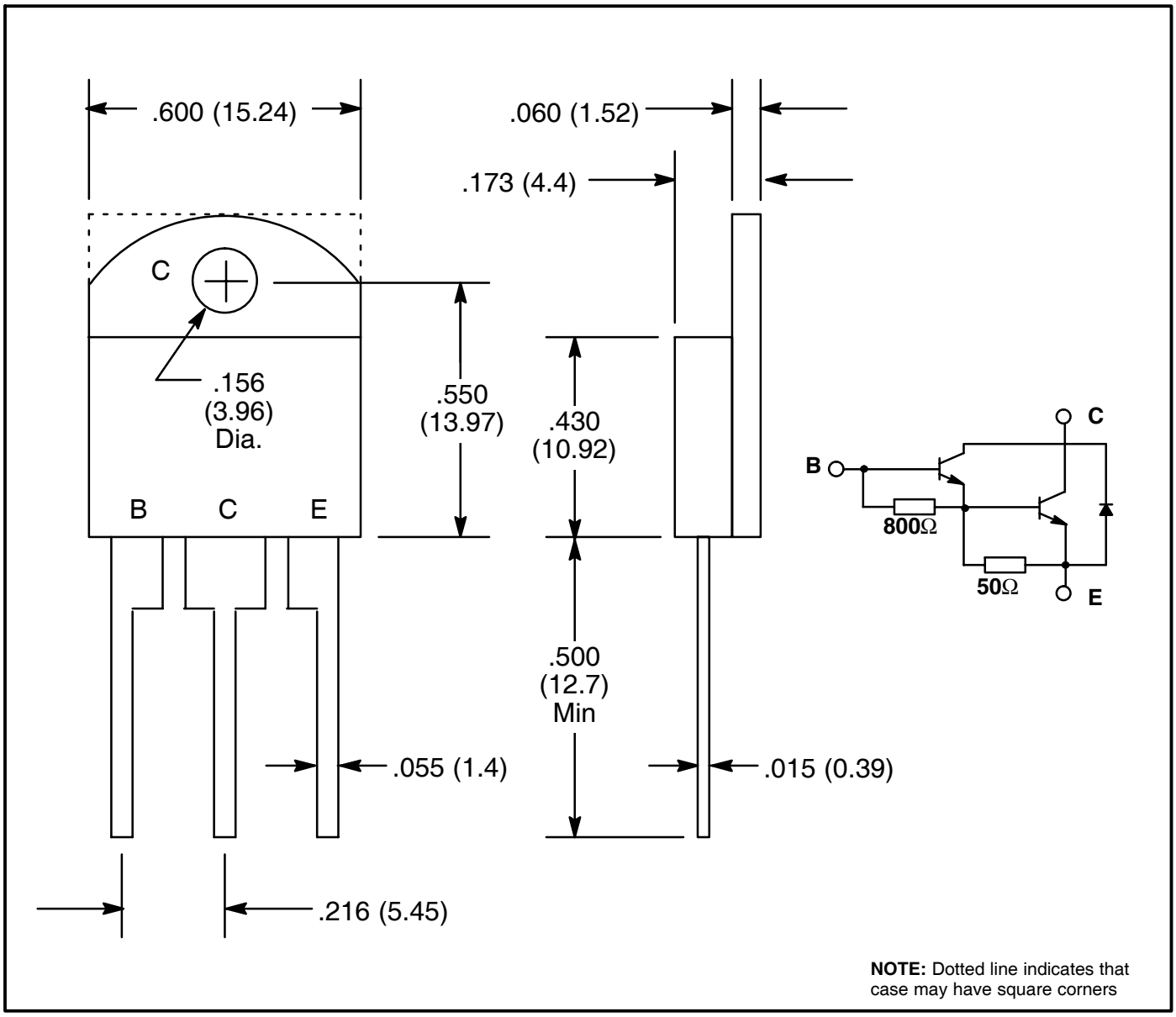
- Automotive Market

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

Collector–Base Voltage (Open Emitter), V_{CBO} 500V
Collector–Emitter Voltage (Open Base), V_{CEO} 450V
Emitter–Base Voltage (Open Collector), V_{EBO} 5V
Collector Current, I_C
    Continuous 15A
    Peak 30A
Base Current, I_B
    Continuous 1A
    Peak 5A
Total Power Dissipation (T_C = +25°C), P_T 105W
Maximum Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 2.08°C/W

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

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
OFF Characteristics							
Collector–Emitter Sustaining Voltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0		450	–	–	V
Collector Cutoff Current	I_{CES}	T_J = +25°C	V_{CE} = 500V, V_{BE} = 0,	–	–	1	mA
		T_J = +125°C		–	–	5	mA
	I_{CEO}	V_{CE} = 450V, I_B = 0		–	–	1	mA
Emitter Cutoff Current	I_{EBO}	I_C = 0, V_{EB} = 5V		–	–	50	mA
ON Characteristics							
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 8A, I_B = 150mA		–	–	1.8	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 8A, I_B = 150mA		–	–	2.2	V
DC Current Gain	h_{FE}	I_C = 5A, V_{CE} = 10V		300	–	–	
Diode Forward Voltage	V_F	I_F = 10A		–	–	2.8	V



NOTE: Dotted line indicates that case may have square corners