

NTE2337 Silicon NPN Transistor High Speed Switch

Features:

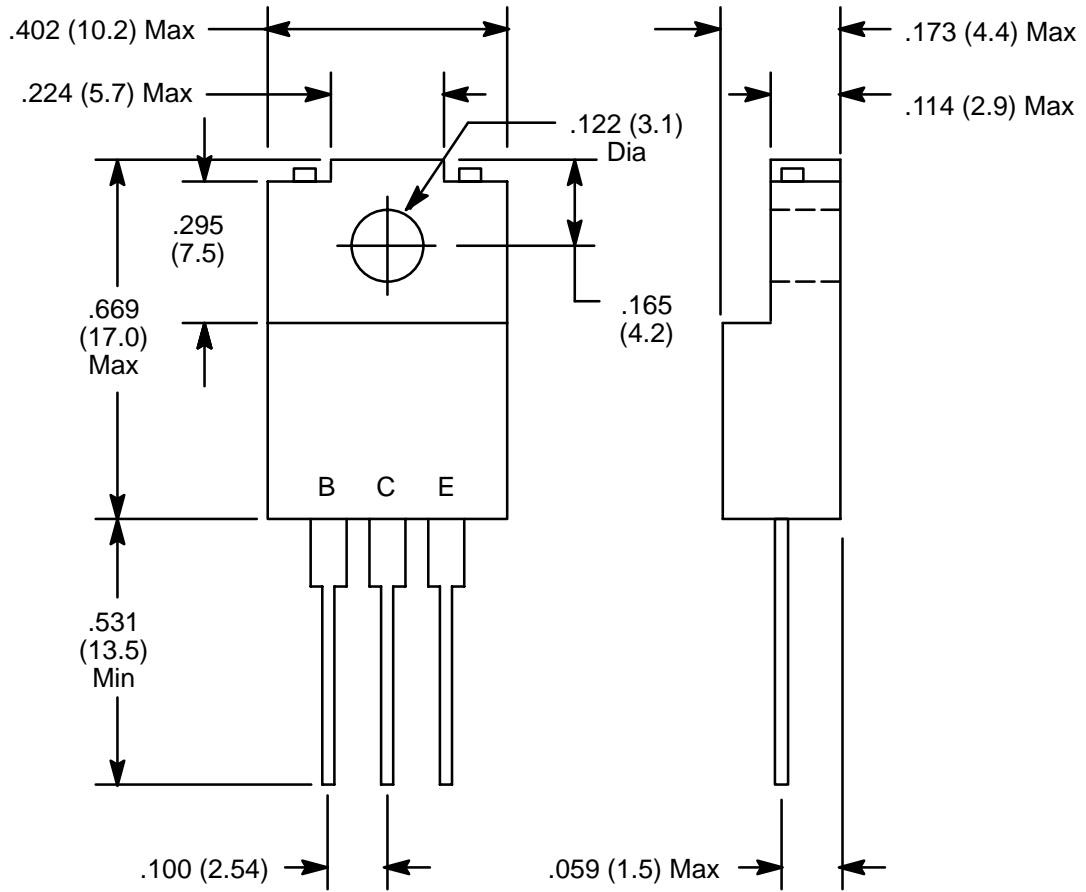
- High Collector–Base Voltage (V_{CBO})
- Wide Area of Safety Operation (ASO)
- Good Linearity of DC Current Gain (h_{FE})

Absolute Maximum Ratings: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Collector–Base Voltage, V_{CBO}	900V
Collector Emitter Voltage, V_{CES}	900V
Collector–Emitter Voltage, V_{CEO}	500V
Emitter Base Voltage, V_{EBO}	8V
Peak Collector Current, I_{CP}	15A
Collector Current, I_C	7A
Base Current, I_B	4A
Collector Power Dissipation, P_C	
$T_C = +25^\circ\text{C}$	45W
$T_A = +25^\circ\text{C}$	2W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55° to +150°C

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 900V, I_E = 0$	–	–	100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	–		100	μA
Collector Emitter Voltage	V_{CEO}	$I_C = 10\text{mA}, I_B = 0$	500	–	–	V
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 0.1A$	15	–	–	
	h_{FE2}	$V_{CE} = 5V, I_C = 4A$	8	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.8A$	–	–	1.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.8A$	–	–	1.5	V
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 0.5A, f = 1\text{MHz}$	–	20	–	MHz
Turn–On Time	t_{on}	$I_C = 4A,$ $I_{B1} = 0.8A, I_{B2} = -1.6A,$ $V_{CC} = 200V$	–	–	1.0	μs
Storage Time	t_{stg}		–	–	3.0	μs
Collector Current Fall Time	t_f		–	–	0.3	μs



NOTE: Tab is isolated