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## NTE2337 Silicon NPN Transistor High Speed Switch TO-220 Full Pack

**Features:**

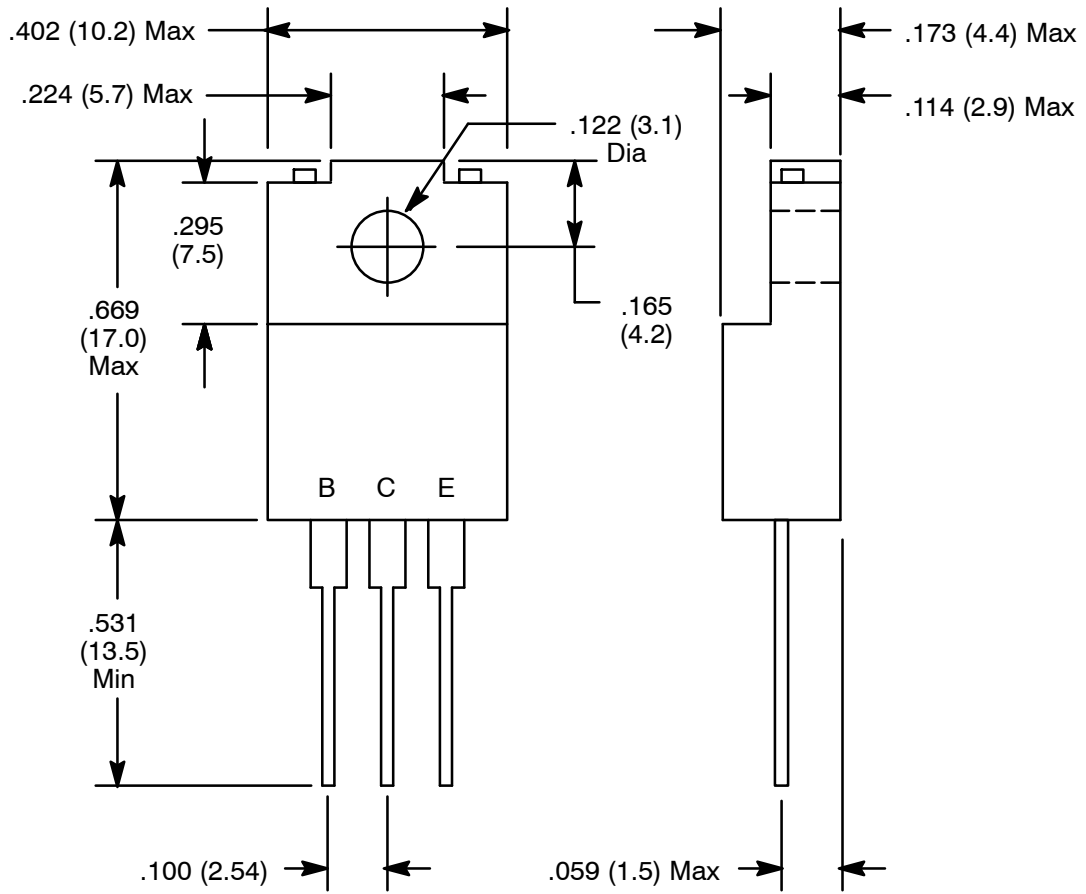
- High Collector-Base Voltage ( $V_{CBO}$ )
- Wide Area of Safety Operation (ASO)
- Good Linearity of DC Current Gain ( $h_{FE}$ )

**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	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	-	-	100	$\mu\text{A}$
Collector Emitter Voltage	$V_{CEO}$	$I_C = 10\text{mA}, I_B = 0$	500	-	-	V
DC Current Gain	$h_{FE1}$	$V_{CE} = 5V, I_C = 0.1\text{A}$	15	-	-	
	$h_{FE2}$	$V_{CE} = 5V, I_C = 4\text{A}$	8	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4\text{A}, I_B = 0.8\text{A}$	-	-	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4\text{A}, I_B = 0.8\text{A}$	-	-	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 0.5\text{A}, f = 1\text{MHz}$	-	20	-	MHz
Turn-On Time	$t_{on}$	$I_C = 4\text{A},$ $I_{B1} = 0.8\text{A}, I_{B2} = -1.6\text{A},$ $V_{CC} = 200V$	-	-	1.0	$\mu\text{s}$
Storage Time	$t_{stg}$		-	-	3.0	$\mu\text{s}$
Collector Current Fall Time	$t_f$		-	-	0.3	$\mu\text{s}$



**NOTE:** Tab is isolated