



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

**NTE2593**  
**Silicon NPN Transistor**  
**High Voltage Amp/Switch**  
**TO-220 Full Pack**

**Features:**

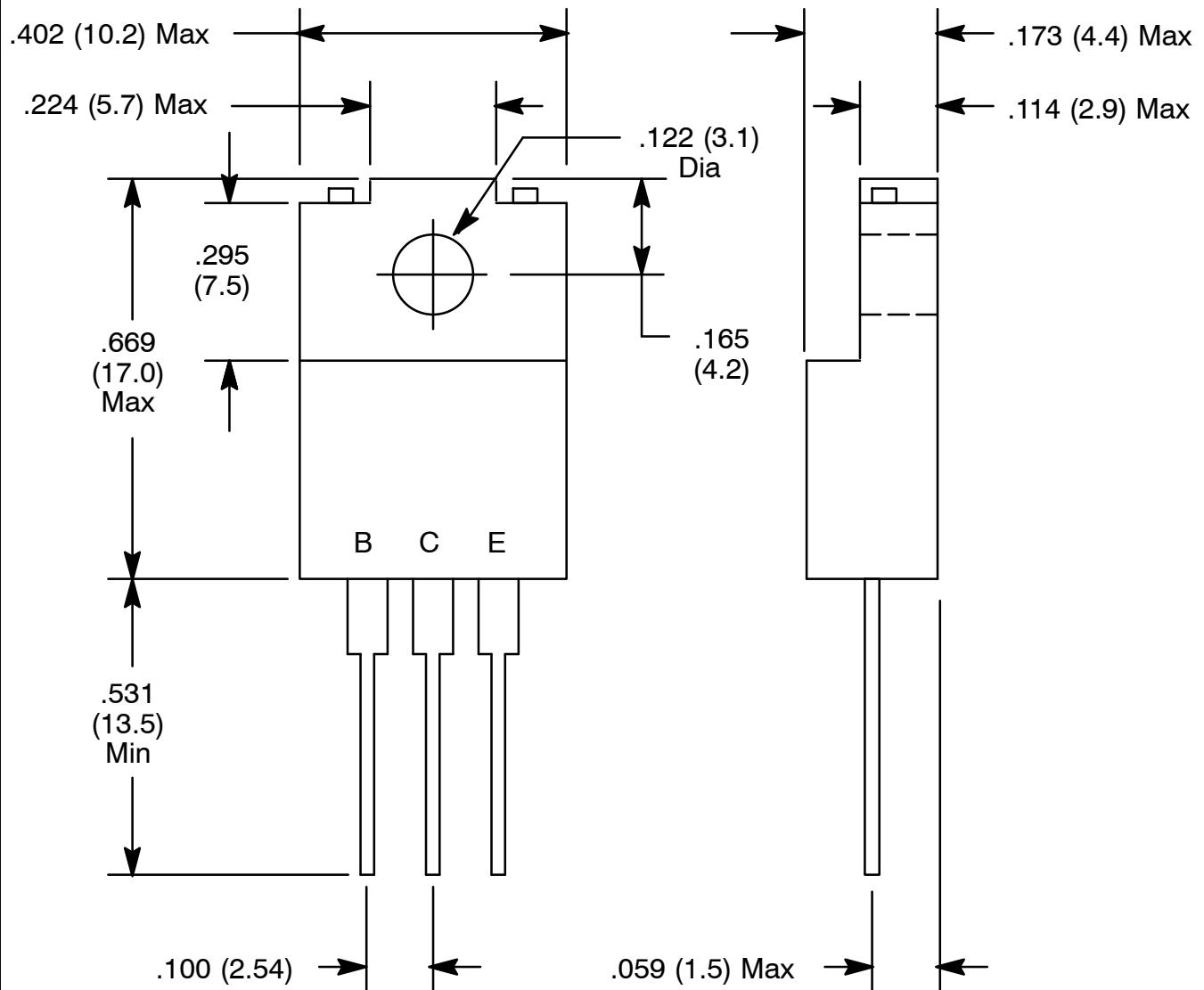
- High Breakdown Voltage:  $V_{(BR)CEO} = 2100V$  Min
- Low Output Capacitance
- Wide ASO Range

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

Collector–Base Voltage, $V_{CBO}$ .....	2100V
Collector–Emitter Voltage, $V_{CEO}$ .....	2100V
Emitter–Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$	
Continuous .....	10mA
Peak .....	30mA
Collector Power Dissipation, $P_C$ .....	2W
Operating Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 2100V$ , $I_E = 0$	—	—	1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V$ , $I_C = 0$	—	—	1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = 5V$ , $I_C = 500\mu A$	10	—	60	
Gain Bandwidth Product	$f_T$	$V_{CE} = 10V$ , $I_C = 500\mu A$	—	6	—	MHz
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1mA$ , $I_B = 200\mu A$	—	—	5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1A$ , $I_B = 200\mu A$	—	—	2	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A$ , $I_E = 0$	2100	—	—	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\mu A$ , $R_{BE} = \infty$	2100	—	—	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu A$ , $I_C = 0$	5	—	—	V
Output Capacitance	$C_{ob}$	$V_{CB} = 100V$ , $f = 1MHz$	—	1.3	—	pF



**NOTE:** Tab is isolated