



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

NTE2553 Silicon NPN Transistor Darlington, Motor Driver, Switch TO-220 Full Pack

Features:

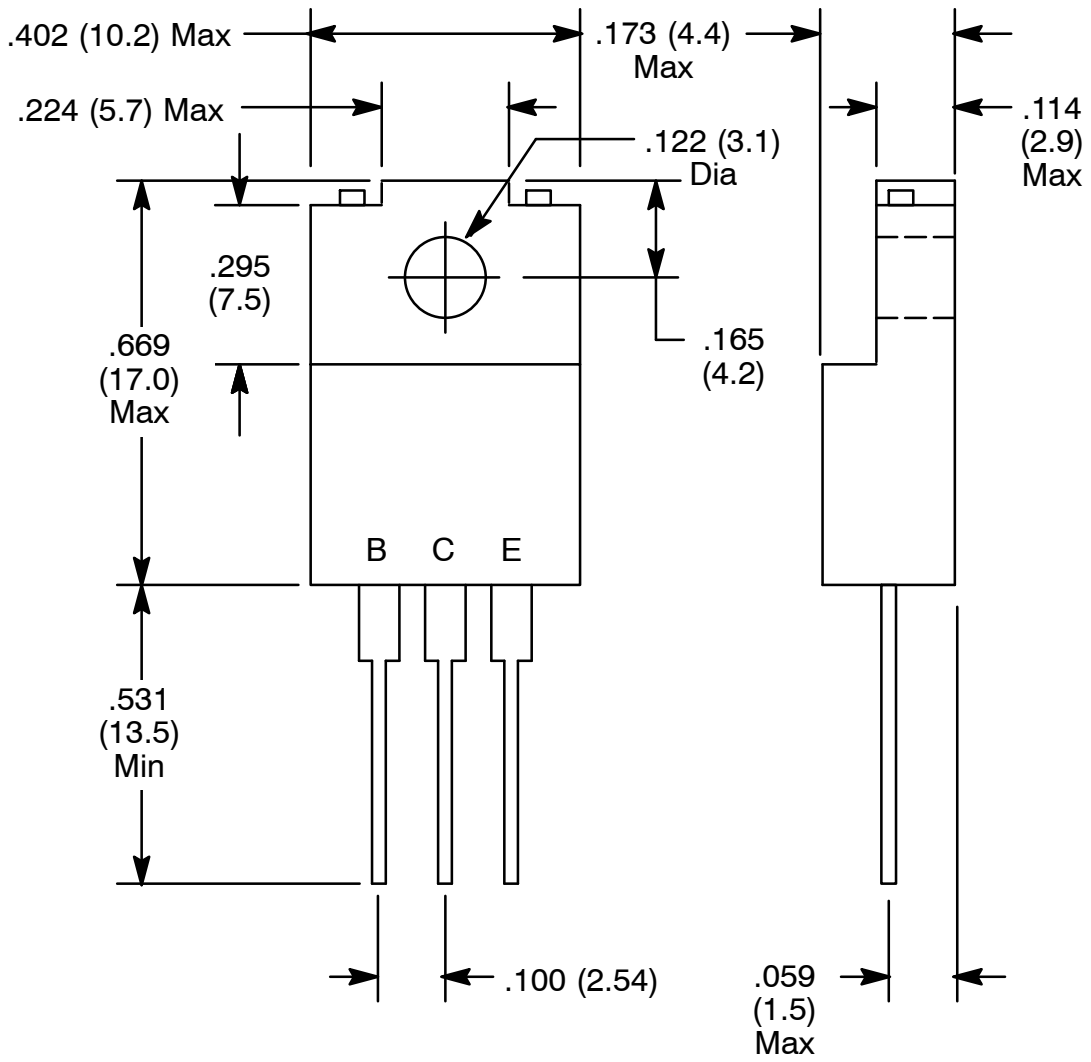
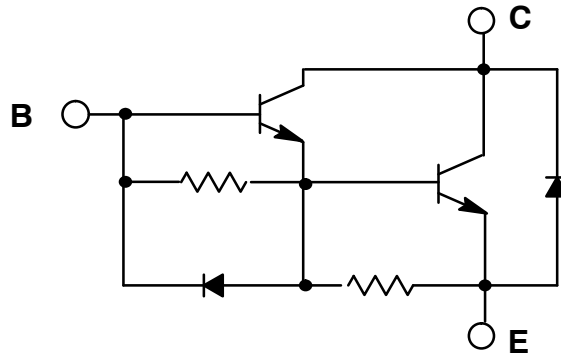
- High DC Current Gain
- High Breakdown Voltage

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

Collector-Base Voltage, V_{CBO}	300V
Collector-Emitter Voltage, V_{CEO}	200V
Emitter-Base Voltage, V_{EBO}	6V
Collector Current, I_C	
Continuous	±12A
Peak	±18A
Base Current, I_B	1A
Collector Power Dissipation, P_C	
$T_A = +25^\circ\text{C}$	2W
$T_C = +25^\circ\text{C}$	30W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 300V, I_E = 0$	-	-	100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 6V, I_C = 0$	50	-	150	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	300	-	-	V
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 250mA, L 40mH$	200	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = 2V, I_C = 5A$	500	-	5000	
		$V_{CE} = 2V, I_C = 10A$	100	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10A, I_B = 100mA$	-	-	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10A, I_B = 100mA$	-	-	2.3	V
Emitter-Collector Forward Voltage	V_{ECF}	$I_E = 10A, I_B = 0$	-	1.5	2.0	V
Transition Frequency	f_T	$V_{CE} = 2V, I_C = 1A$	-	40	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	200	-	pF
Turn-On Time	t_{on}	$V_{CC} = 100V,$ $I_{B1} = -I_{B2} = 100mA$	-	-	1.0	μs
Storage Time	t_{stg}		-	-	12	μs
Fall Time	t_f		-	-	2.0	μs



NOTE: Tab is isolated