



**ELECTRONICS, INC.**  
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## NTE2557 Silicon NPN Transistor Darlington, High Voltage Switch, Power Amp

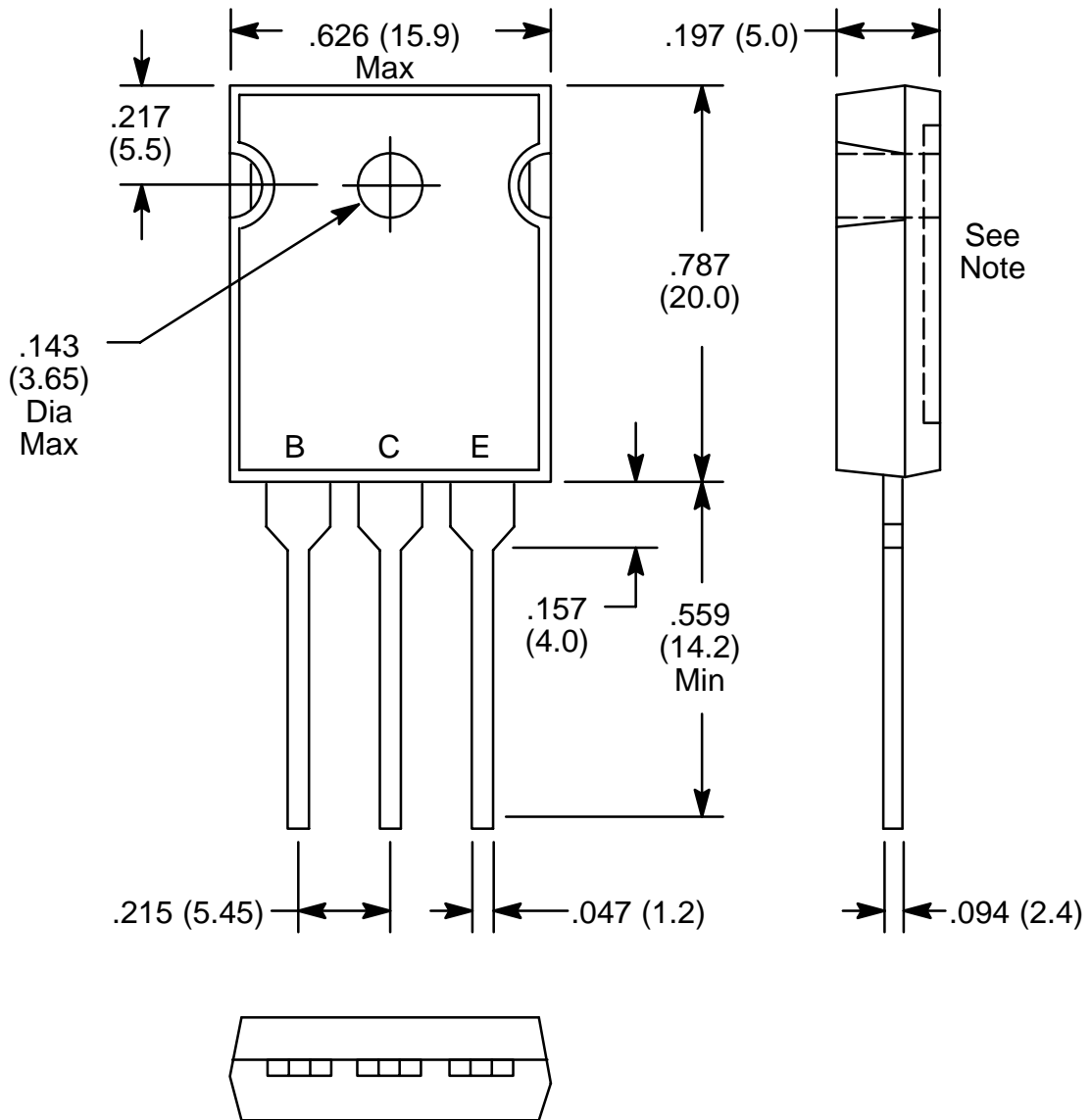
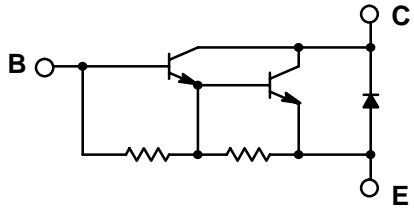
**Absolute Maximum Ratings:**

Collector–Base Voltage, $V_{CBO}$ .....	200V
Collector–Emitter Voltage, $V_{CEO}$ .....	200V
Emitter–Base Voltage, $V_{EBO}$ .....	7V
Collector Current, $I_C$	
Continuous .....	15A
Peak .....	22A
Base Current, $I_B$	
Continuous .....	1A
Peak .....	2A
Total Transistor Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_T$ .....	100W
Operating Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	–55° to +150°C
Thermal Resistance, Junction–to–Case, $R_{thJC}$ .....	1.25°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 200V$	–	–	0.1	mA
	$I_{CEO}$	$V_{CE} = 200V$	–	–	0.1	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 7V$	–	–	5.0	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 3V, I_C = 10A$	1500	–	30000	
Transistion Frequency	$f_T$	$V_{CE} = 10V, I_C = 1.5A$	–	20	–	MHz
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10A, I_B = 30mA$	–	–	1.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10A, I_B = 30mA$	–	–	2.0	V
Turn–On Time	$t_{on}$	$I_{B1} = I_{B2} = 30mA,$ $I_C = 10A, R_L = 3\Omega,$ $V_{BB2} = 4V$	–	–	2	$\mu s$
Storage Time	$t_{stg}$		–	–	8	$\mu s$
Fall Time	$t_f$		–	–	5	$\mu s$

**NPN**



**Note:** Pin2 connected to metal part of mounting surface.