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## NTE2649 (NPN) & NTE2650 (PNP) Silicon Complementary Transistors Darlingtons

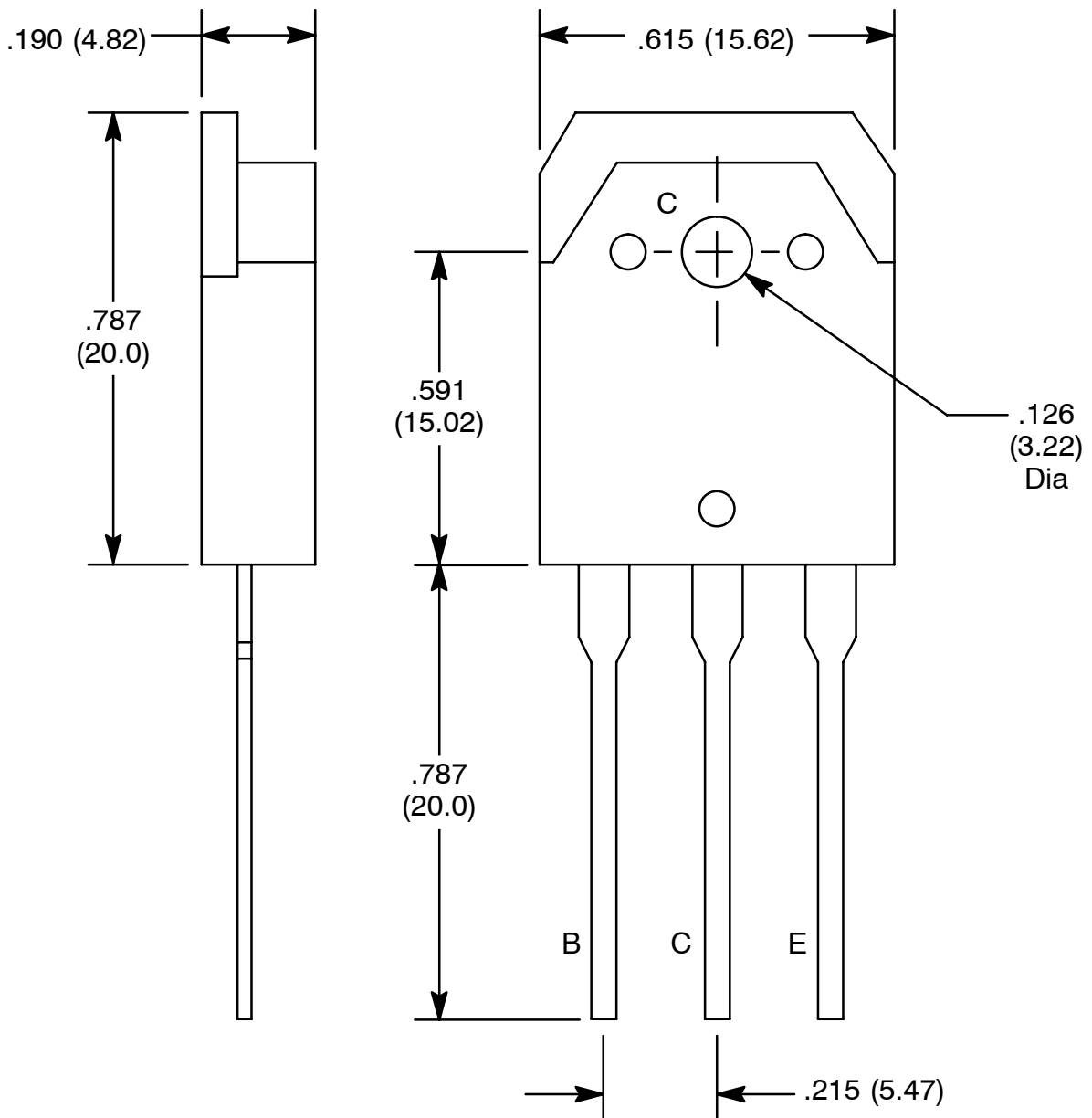
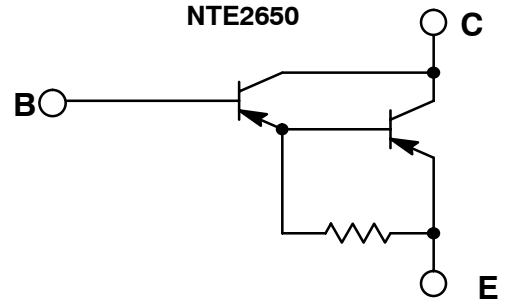
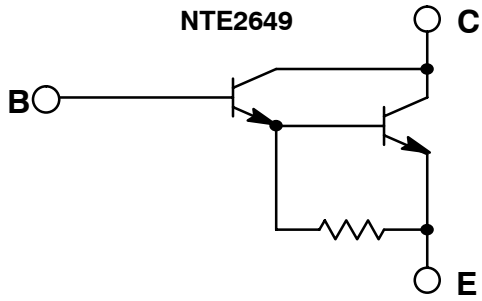
**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Collector–Base Voltage, $V_{CB0}$ .....	200V
Collector–Emitter Voltage, $V_{CEO}$ .....	200V
Emitter–Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$ .....	15A
Base Current, $I_B$ .....	1A
Collector Power Dissipation ( $T_A = +25^\circ\text{C}$ ), $P_C$ .....	130W
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 Cutoff Current	$I_{CBO}$	$V_{CB} = 200\text{V}, I_E = 0$	–	–	100	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	–	–	100	$\mu\text{A}$
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 30\text{mA}$	200	–	–	V
DC Current Gain	$h_{FE}$	$V_{CE} = 4\text{V}, I_C = 10\text{A}$	5000	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{A}, I_B = 10\text{mA}$	–	–	2.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10\text{A}, I_B = 10\text{mA}$	–	–	3.0	V
Transition Frequency	$f_T$	$V_{CE} = 12\text{V}, I_E = 2\text{A}$	–	70	–	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	–	120	–	pF

Schematic Diagram



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