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NTE2649 (NPN) & NTE2650 (PNP) Silicon Complementary Transistors Darlington

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

Collector-Base Voltage, V_{CBO}	200V
Collector-Emitter Voltage, V_{CEO}	180V
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}	$V_{CB} = 200V, I_E = 0$	-	-	100	° A
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	-	100	° A
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 30mA$	180	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = 4V, I_C = 10A$	5000	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10A, I_B = 10mA$	-	-	2.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10A, I_B = 10mA$	-	-	3.0	V
Transition Frequency	f_T	$V_{CE} = 12V, I_E = 2A$	-	70	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	120	-	pF

Schematic Diagram

