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NTE2540 Silicon NPN Transistor Darlington, High Voltage Switch TO-220 Full Pack

Features:

- High DC Current Gain: $h_{FE} = 600$ Min ($V_{CE} = 2V, I_C = 2A$)
- Monolithic Construction ^{w/}Built-In Base-Emitter Shunt Resistor

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

Collector Base Voltage, V_{CBO}	600V
Collector Emitter Voltage, V_{CEO}	400V
Emitter Base Voltage, V_{EBO}	5V
Collector Current, I_C	6A
Base Current, I_B	1A
Collector Power Dissipation, P_C	
$T_A = +25^\circ C$	2W
$T_C = +25^\circ C$	25W
Operating Junction Temperature, T_J	$+150^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ C$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 600V, I_E = 0$	-	-	0.5	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	-	3	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	400	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = 2V, I_C = 2A$	600	-	-	
		$V_{CE} = 2V, I_C = 4A$	100	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 40mA$	-	-	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 40mA$	-	-	2.5	V
Emitter-Collector Forward Voltage	V_{ECF}	$I_E = 4A, I_B = 0$	-	-	3.0	V
Collector Output Capacitance	C_{ob}	$V_{CB} = 50V, I_E = 0, f = 1MHz$	-	35	-	pF
Turn-On Time	t_{on}	$V_{CC} = 100V,$ $I_{B1} = -I_{B2} = 40mA,$ Duty Cycle $\leq 1\%$	-	1	-	μs
Storage Time	t_{stg}		-	8	-	μs
Fall Time	t_f		-	5	-	μs

Darlington Internal Schematic

