

## NTE2544 Silicon NPN Transistor Darlington Driver

**Features:**

- Darlington Connction
- High DC Current Gain
- Low Dependence of DC Current Gain on Temperature

**Applications:**

- Motor Driver
- Printer Hammer Driver
- Relay Driver

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

Collector–Base Voltage, $V_{CBO}$ .....	120V
Collector–Emitter Voltage, $V_{CEO}$ .....	120V
Emitter–Base Voltage, $V_{EBO}$ .....	6V
Collector Current, $I_C$	
Continuous .....	1.5A
Peak .....	3.0A
Collector Dissipation, $P_C$	
$T_A = +25^\circ\text{C}$ .....	1W
$T_C = +25^\circ\text{C}$ .....	10W
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	$I_{CBO}$	$V_{CB} = 100V, I_E = 0$	–	–	10	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	–	–	2.5	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 3V, I_C = 0.5A$	1000	–	–	
		$V_{CE} = 3V, I_C = 1A$	2000	–	30000	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 2mA$	–	–	1.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 2mA$	–	–	2.0	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	120	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, R_{BE} = \infty$	120	–	–	V

### Schematic Diagram

