

NTE216
Silicon NPN Transistor
High Speed Switch, Core Driver

Absolute Maximum Ratings:

Collector–Base Voltage, V_{CB0}	80V
Collector–Emitter Voltage, V_{CEO}	50V
Emitter–Base Voltage, V_{EBO}	6V
Collector Current, I_C	1.5A
Power Dissipation ($T_A = +25^\circ\text{C}$), P_D	1.2W
Maximum Operating Temperature, T_{opr}	+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}	$V_{CB} = 60V$	–	–	1.7	μA
DC Current Gain	h_{FE}	$I_C = 10\text{mA}, V_{CE} = 1V$	30	–	–	
		$I_C = 150\text{mA}, V_{CE} = 1V$	60	–	150	
		$I_C = 300\text{mA}, V_{CE} = 1V$	40	–	–	
		$I_C = 500\text{mA}, V_{CE} = 1V$	35	–	–	
		$I_C = 800\text{mA}, V_{CE} = 2V$	20	–	–	
		$I_C = 1A, V_{CE} = 5V$	25	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}$	–	–	0.25	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10\text{mA}$	–	–	0.76	V
Capacitance	C_{ob}		–	–	10	pF
Turn–Off Time	t_{off}	$V_{CC} = 30V, I_C = 500\text{mA},$ $I_{B1} = I_{B2} = 50\text{mA}$	–	–	60	ns

