

NTE2363 (NPN) & NTE2364 (PNP) Silicon Complementary Transistors High Current General Purpose Amp/Switch

Features:

- Low Saturation Voltage
- Large Current Capacity and Wide ASO

Applications:

- Power Supplies
- Relay Drivers
- Lamp Drivers
- Automotive Wiring

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

Collector–Base Voltage, V_{CBO}	60V
Collector–Emitter Voltage, V_{CEO}	50V
Emitter–Base Voltage, V_{EBO}	6V
Collector Current, I_C	
Continuous	2A
Peak	4A
Allowable Collector Dissipation, P_C	1W
Junction Temperature, T_J	+150°C
Storage Ambient Temperature Range, T_{stg}	–55° to +150°C

Note 1 For PNP device (NTE2364), voltage and current values are negative.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 50V, I_E = 0$	–	–	0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$	–	–	0.1	μA
DC Current Gain	$h_{FE} (1)$	$V_{CE} = 2V, I_C = 100\text{mA}$	200	–	400	
	$h_{FE} (2)$	$V_{CE} = 2V, I_C = 1.5A$	40	–	–	
Gain Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 50\text{mA}$	–	150	–	MHz

Electrical Characteristics (Cont'd): ($T_A = +25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Capacitance NTE2363	C_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$	–	12	–	pF
NTE2364			–	22	–	pF
Collector–Emitter Saturation Voltage NTE2363	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 50\text{mA}$	–	0.15	0.4	V
NTE2364			–	0.3	0.7	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1\text{A}, I_B = 50\text{mA}$	–	0.9	1.2	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	60	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	50	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	6	–	–	V

