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## 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, $T_J$ .....	$+150^\circ\text{C}$
Storage Ambient Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+150^\circ\text{C}$

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	$I_{CBO}$	$V_{CB} = 50\text{V}, I_E = 0$	–	–	0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$	–	–	0.1	$\mu\text{A}$
DC Current Gain	$h_{FE} (1)$	$V_{CE} = 2\text{V}, I_C = 100\text{mA}$	140	–	280	
	$h_{FE} (2)$	$V_{CE} = 2\text{V}, I_C = 1.5\text{A}$	40	–	–	
Gain Bandwidth Product	$f_T$	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	–	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

