



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE2647 (PNP) & NTE2648 (NPN) Silicon Complementary Transistors General Purpose Amp

Features:

- High Transition Frequency

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

Collector–Base Voltage, V_{CBO}	230V
Collector–Emitter Voltage, V_{CEO}	230V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	1A
Collector Power Dissipation, P_C	
$T_A = +25^\circ\text{C}$	2.0W
$T_C = +25^\circ\text{C}$	20W
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}	$V_{CB} = 230V, I_E = 0$	–	–	1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = V, I_C = 0$	–	–	1.0	μA
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	230	–	–	V
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 100\text{mA}$	100	–	320	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$	–	–	1.5	V
Base–Emitter Voltage	V_{BE}	$V_{CE} = 5V, I_C = 500\text{mA}$	–	–	1.0	V
Transition Frequency NTE2747	f_T	$V_{CE} = 10V, I_C = 100\text{mA}$	–	70	–	MHz
NTE2748			–	100	–	MHz
Collector Output Capacitance NTE2647	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1\text{MHz}$	–	30	–	pF
NTE2748			–	20	–	pF

