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## 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	$I_{CBO}$	$V_{CB} = 230\text{V}, I_E = 0$	–	–	1.0	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = V, I_C = 0$	–	–	1.0	$\mu\text{A}$
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	230	–	–	V
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 100\text{mA}$	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	$V_{BE}$	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	–	–	1.0	V
Transition Frequency NTE2747	$f_T$	$V_{CE} = 10\text{V}, I_C = 100\text{mA}$	–	70	–	MHz
NTE2748			–	100	–	MHz
Collector Output Capacitance NTE2647	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	–	30	–	pF
NTE2748			–	20	–	pF

