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NTE2666 (NPN) & NTE2667 (PNP) Silicon Complementary Transistors High Frequency Driver

Features:

- DC Current Gain Specified to 5 Amperes
- Collector-Emitter Sustaining Voltage
- High Current Gain – Bandwidth Product

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

Collector-Emitter Voltage, V_{CEO}	250V
Collector-Base Voltage, V_{CB}	250V
Emitter-Base Voltage, V_{EB}	5V
Collector Current, I_C	
Continuous	8A
Peak	16A
Base Current, I_B	2A
Total Power Dissipation ($T_C = +25^\circ\text{C}$), P_D	50W
Derate Above $+25^\circ\text{C}$	0.4W/ $^\circ\text{C}$
Total Power Dissipation ($T_A = +25^\circ\text{C}$), P_D	2W
Derate Above $+25^\circ\text{C}$	0.016W/ $^\circ\text{C}$
Operating Junction Temperature Range, T_J	-65° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 10\text{mA}$, $I_B = 0$, Note 1	250	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 250\text{V}$, $I_E = 0$	–	–	10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$	–	–	10	μA
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	$I_C = 0.5\text{A}$, $V_{CE} = 5\text{V}$	70	–	–	–
		$I_C = 1\text{A}$, $V_{CE} = 5\text{V}$	50	–	–	–
		$I_C = 2\text{A}$, $V_{CE} = 5\text{V}$	10	–	–	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}$, $I_B = 0.1\text{A}$	–	–	0.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	$I_C = 1\text{A}$, $V_{CE} = 5\text{V}$	–	–	1.0	V
Dynamic Characteristics: ($f_T = h_{fe} \cdot f_{test}$)						
Current Gain-Bandwidth Product	f_T	$I_C = 500\text{mA}$, $V_{CE} = 10\text{V}$, $f_{test} = 1\text{MHz}$	30	–	–	MHz

Note 1. Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$.

