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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 $+25^\circ\text{C}$ .....	.016W/ $^\circ\text{C}$
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>OFF Characteristics</b>						
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	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$	-	-	10	$\mu\text{A}$
<b>ON Characteristics (Note 1)</b>						
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
<b>Dynamic Characteristics: (<math>f_T =  h_{fe}  \cdot f_{test}</math>)</b>						
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  $\leq 2.0\%$ .

