



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089

NTE2561 Silicon NPN Transistor Video Amplifier

Features:

- High Gain-Bandwidth Product
- High Breakdown Voltage
- Large Current
- Small Reverse Transfer Capacitance

Applications:

- Wide-Band Amplifiers

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

Collector-Base Voltage, V_{CBO}	100V
Collector-Emitter Voltage, V_{CEO}	80V
Emitter-Base Voltage, V_{EBO}	3V
Collector Current, I_C	
Continuous	500mA
Peak (Pulse)	1.0A
Collector Dissipation, P_C	
$T_A = +25^\circ\text{C}$	1.75W
$T_C = +25^\circ\text{C}$	15W
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}	$V_{CB} = 80V, I_E = 0$	-	-	0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2V, I_C = 0$	-	-	5.0	μA
DC Current Gain	h_{FE}	$V_{CE} = 10V, I_C = 50\text{mA}$	30	-	200	
		$V_{CE} = 10V, I_C = 100\text{mA}$	20	-	-	
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 100\text{mA}$	-	1.2	-	GHz
Output Capacitance	C_{ob}	$V_{CB} = 30V, f = 1\text{MHz}$	-	4.4	-	pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = 30V, f = 1\text{MHz}$	-	3.8	-	pF
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$	-	-	0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$	-	-	1.2	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	100	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	80	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}, I_C = 0$	3	-	-	V

