



ELECTRONICS, INC.
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NTE726 Integrated Circuit Wide Band Amplifier

Features:

- Exceptionally High Amplifier Gain: Power Gain at 4.5MHz/s – 75dB (Typ)
- Excellent Limiting Characteristics: Input Limiting Voltage (Knee) = 600µV (Typ) at 10.7MHz/s
- Wide Frequency Capability: 100kHz/s to > 20MHz/s

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

Recommended Minimum DC Supply Voltage, V_{CC} 5.5V
 Minimum Input Signal Voltage (Between Pin1 and Pin2) $\pm 3\text{V}$
 Maximum Device Dissipation, P_D 300mW
 Operating Temperature Range, T_{opr} -55° to $+125^{\circ}\text{C}$
 Storage Temperature Range, T_{stg} -65° to $+150^{\circ}\text{C}$
 Lead Temperature (During Soldering, 1/16" from case, 10sec max), T_L $+265^{\circ}\text{C}$

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

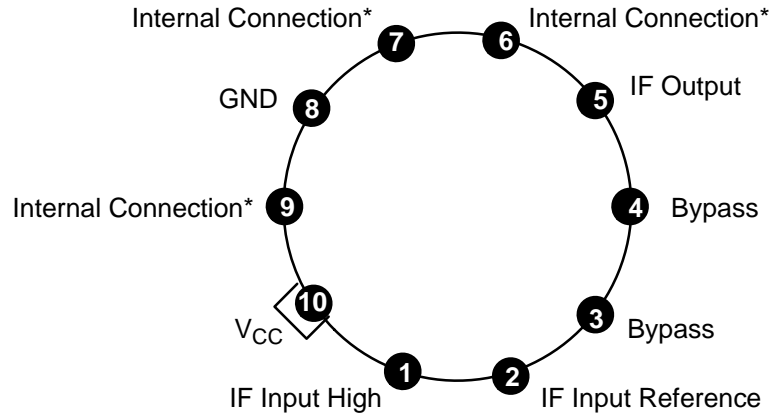
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Device Dissipation	P_T	$V_{CC} = 6\text{V}$, Note 1	66	90	121	mW
		$V_{CC} = 7.5\text{V}$, Note 1	97	120	167	mW
		$V_{CC} = 10\text{V}$, Note 1	150	190	255	mW
Voltage Gain	A	$V_{CC} = 6\text{V}$, $f = 1\text{Mc/s}$, Note 2	60	66	–	dB
		$V_{CC} = 7.5\text{V}$, $f = 1\text{Mc/s}$, Note 2	65	70	–	dB
		$V_{CC} = 7.5\text{V}$, $f = 4.5\text{Mc/s}$, Note 2	60	67	–	dB
		$V_{CC} = 7.5\text{V}$, $f = 10.7\text{Mc/s}$, Note 2	55	61	–	dB
		$V_{CC} = 10\text{V}$, $f = 1\text{Mc/s}$, Note 2	65	71	–	dB
Input-Impedance Components						
Parallel Input Resistance	R_{IN}	$V_{CC} = 7.5\text{V}$, $f = 4.5\text{Mc/s}$	–	3	–	k Ω
Parallel Input Capacitance	C_{IN}		–	7	–	pF
Output-Impedance Components						
Parallel Output Resistance	R_{OUT}	$V_{CC} = 7.5\text{V}$, $f = 4.5\text{Mc/s}$	–	31.5	–	k Ω
Parallel Output Capacitance	C_{OUT}		–	4.2	–	pF
Noise Figure	NF	$V_{CC} = 7.5\text{V}$, $f = 4.5\text{Mc/s}$	–	8.7	–	dB
Input Limiting Voltage (Knee)	$V_{i(lim)}$	$V_{CC} = 7.5\text{V}$, $f = 4.5\text{Mc/s}$	–	300	400	μV

Note 1. The total current drain may be determined by dividing P_T by V_{CC} .

Note 2. Recommended minimum DC supply voltage (V_{CC}) is 5.5V. Nominal load current flowing into Pin5 is 1.5mA at 7.5V.

Pin Connection Diagram

(Top View)



*NOTE: These leads are internally connected. DO NOT USE.

