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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)	$\pm 3V$
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)

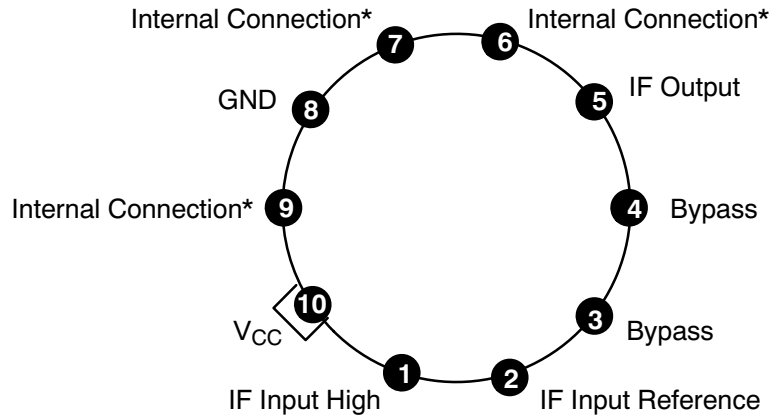
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Device Dissipation	P_T	$V_{CC} = 6V$, Note 1	66	90	121	mW
		$V_{CC} = 7.5V$, Note 1	97	120	167	mW
		$V_{CC} = 10V$, Note 1	150	190	255	mW
Voltage Gain	A	$V_{CC} = 6V$, $f = 1\text{Mc/s}$, Note 2	60	66	-	dB
		$V_{CC} = 7.5V$, $f = 1\text{Mc/s}$,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

