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

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°C unless otherwise specified)

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

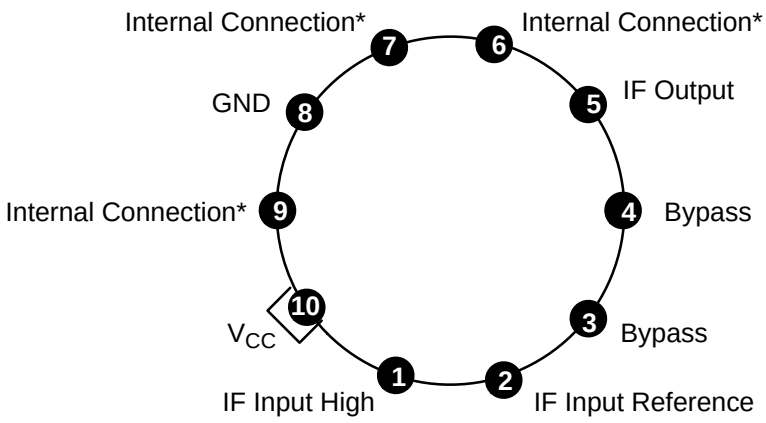
Electrical Characteristics: (T_A = +25°C unless otherwise specified)

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 = 1Mc/s, Note 2	60	66	–	dB
		V_{CC} = 7.5V, f = 1Mc/s, Note 2	65	70	–	dB
		V_{CC} = 7.5V, f = 4.5Mc/s, Note 2	60	67	–	dB
		V_{CC} = 7.5V, f = 10.7Mc/s, Note 2	55	61	–	dB
		V_{CC} = 10V, f = 1Mc/s, Note 2	65	71	–	dB
Input–Impedance Components						
Parallel Input Resistance	R_{IN}	V_{CC} = 7.5V, f = 4.5Mc/s	–	3	–	kΩ
Parallel Input Capacitance	C_{IN}		–	7	–	pF
Output–Impedance Components						
Parallel Output Resistance	R_{OUT}	V_{CC} = 7.5V, f = 4.5Mc/s	–	31.5	–	kΩ
Parallel Output Capacitance	C_{OUT}		–	4.2	–	pF
Noise Figure	NF	V_{CC} = 7.5V, f = 4.5Mc/s	–	8.7	–	dB
Input Limiting Voltage (Knee)	$v_{i(lim)}$	V_{CC} = 7.5V, f = 4.5Mc/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.