ELECTRONICS, INC.
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NTE1394
5.5W Dual Power Amplifier
Car Radio, Car Stereo Output
Audio Power Amplifier

Features:

- Dual Mode or Bridge Connection Mode Type.
- Some Protection Circuits Included
- Thermal Protection, Over Voltage Protection, Current Limitter, BTL DC Short Protection.
- Wide Operating Voltage Range: V_{CC}(opr) = 8V to 18V
- A chassis mounting is easily designed using SIP (Single in Line Package) 12 Pins
- This Power IC Obtains High Output Power by Bridge Connection: P_{OUT} = 17W (Typ) at V_{CC} = 13.2V, R_L = 4Ω, THD = 10%
- Dual Mode: Minimum Load Impedance is 2 ohm
  BTL Mode: Minimum Load Impedance is 4 ohm

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Peak Supply Voltage, V_{CC} surge 45V
DC Supply Voltage (30 sec), V_{CC}DC 25V
Operating Supply Voltage, V_{CC}opr 18V
Output Current (Peak), $I_{O(peak)}$ 4.5A
Power Dissipation, P_D 25W
Operating Temperature Range, T_{opr} . . . . . –30° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCQ}		–	85	200	mA
Output Power Dual	P_{OUT}	THD = 10%	4.5	5.5	–	W
		THD = 10%, R_L = 2Ω	–	8	–	W
BTL		THD = 10%	14	17	–	W
Maximum Output Power Dual	P_{OM}	V_{IN} = 100mV_{rms}	–	9	–	W
BTL			–	30	–	E

Electrical Characteristics (Cont'd):

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Harmonic Distortion Dual	THD	P_{OUT} = 1W	–	0.2	1.5	%
BTL			–	0.3	1.5	%
Voltage Gain	G_V	V_{OUT} = 0dBm	52.5	54.0	55.5	dB
Channel Balance	ΔG_V	V_{OUT} = 0dBm	–	0	±1.0	dB
Channel Separation	CT	V_{OUT} = 0dBm	–	0	±1.0	dB
Ripple Rejection Dual	RR	f = 100Hz	–	–20	–	dB
BTL			–	–29	–	dB
Input Resistance	R_{IN}		20	35	50	kΩ
Output Noise Voltage	V_{NO}	R_g = 10kΩ, BW = 50Hz to 20kHz	–	1	2	mV_{rms}

Pin Connection Diagram
(Front View)