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NTE7067
Integrated Circuit
Audio IF Detector for High Quality Multi–Channel TV & VCR

Description:

The NTE7067 is a 4.5MHz to 6.5MHz intercarrier audio IF detector for high–quality multi–channel TV and VCR sound systems. It is designed for use is quasi–parallel configurations to eliminate audio buzz and minimize other side–effects present in conventional detection circuits.

This device includes a 3–stage IF amplifier, IF AGC circuit, and transistor intercarrier audio detection circuit. The NTE7067 operates from a single 8 to 10V power supply and is available in a 9–Lead SIP type package.

Features:

- Compact Package
- Excellent Audio S/N Characteristics
- Coil–less Circuit

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

Maximum Supply Voltage

V_{CC}max 12V

V_3max (V_{CC} = 12V) 12V

Allowable Power Dissipation ($T_A \leq$ +65°C), $P_d$max 540mW

Maximum Output Current, I_6max 3mA

Operating Temperature Range, T_{opr} . . . . . –10° to +65°C

Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

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

Recommended Supply Voltage, V_7 . . . . . 9V

Operating Voltage Range, V_7op . . . . . 8 to 10V

Electrical Characteristics: (T_A = +25°C, V_{CC} = 9V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_7	V_3 (IF AGC) = 4V	17	22	32	mA
Input Sensitivity	VI	IF input level for 0.35V_{P-P} detector output with 40% modulation	34	42	50	dBμ
AGC Range	GR	(Maximum input for V_O = 0.35V_{P-P}) – V_i	60	70	–	dB
Maximum Input Level	$V_i$max	IF input level for detector output increase of 1dB	100	200	–	dBμ
Detector Output Amplitude	V_{06}	4.5MHz output level, P/S = 13dB	90	130	180	mVrms
Audio S/N	S/N	f_p = 58.75MHz, 87.5% staircase modulation, f_s = 54.25MHz, (S: FM ±25kHz, f_m = 400Hz N: Non–modulation) P/S = 13dB	50	56	–	dB

Pin Connection Diagram
(Front View)



