

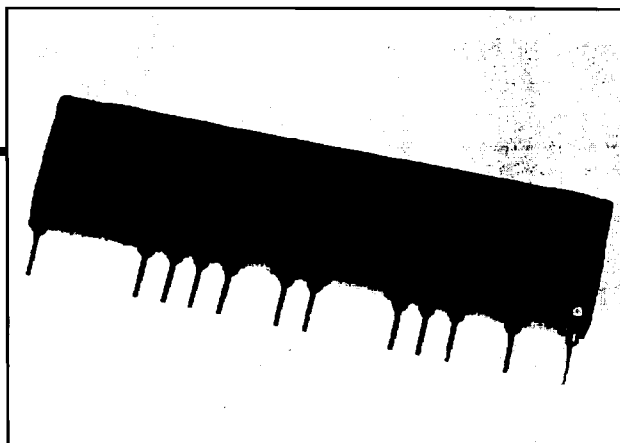


METERING PULSE RECEIVER

DESCRIPTION

The metering pulse receiver bridges a telephone line (usually a city trunk at a PBX) and detects single-frequency metering tones transmitted from the city.

AMS 3050 is for 12KHz tones; AMS 3051 for 16KHz. The receivers have high input impedance, and can be connected directly to the line without coupling capacitors.



FEATURES

- 12 KHz (3050) or 16 KHz (3051)
- Direct connection to line
- Tolerates DC line voltage, power induction, lightning
- High input impedance (600K)
- Adjustable detection level
- Single supply, +5 to +18V

BLOCK DIAGRAM

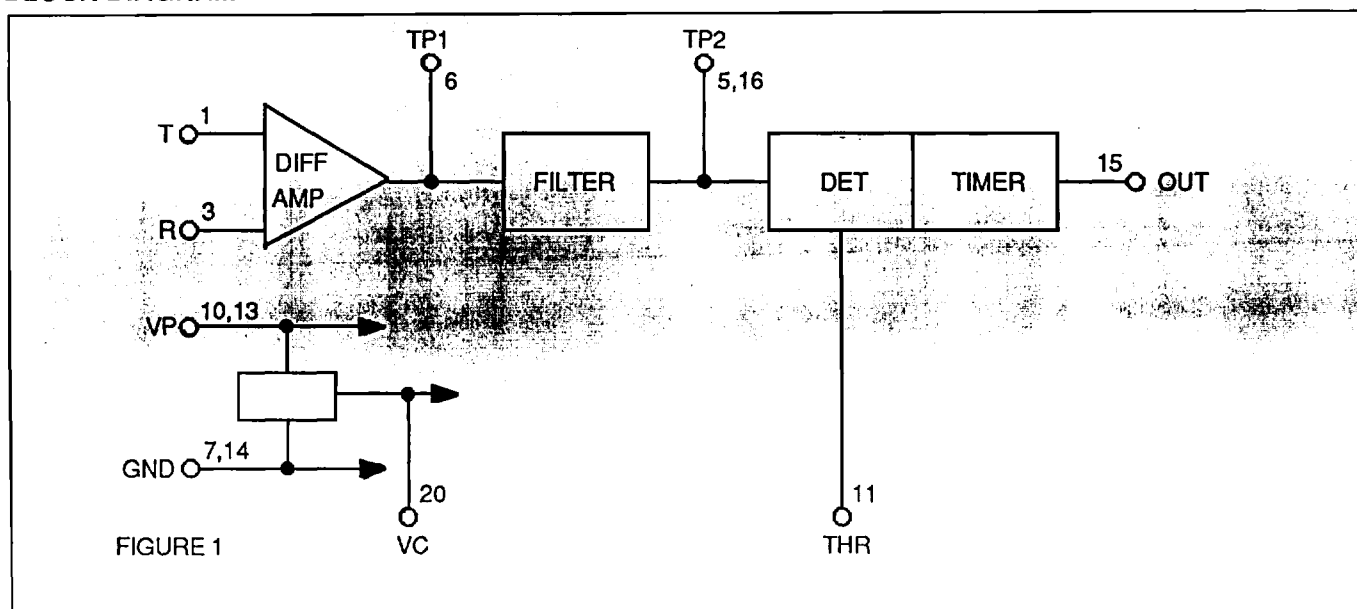


FIGURE 1

Electrical Characteristics

CONDITIONS: TA=0° to 70° C, Supply Voltage=5V. No external threshold adjust resistor.

PARAMETER	CONDITIONS	MIN	MAX	UNITS
Operate Level (In Band)	3050: 12KHZ $\pm 1\%$	50	100	mV
	3051: 16KHZ $\pm 1\%$	25	50	mV
Operate Level (Out of Band)	3050: <10KHz, >14.4KHz	2000		mV
	3051: <13.4KHz, >18.6KHz	500		mV
Operate Pulse	3050: 12KHz, >100mV	30	50	mS
	3051: 16KHz, >50mV			
Release Pause	3050: 12KHz, >100mV	30	75	mS
	3051: 16KHz, >50mV			
Input Impedance	Tip to Ring	600		K Ω
	Tip or Ring to GND	300		K Ω
Common Mode Rejection Ratio	f<19KHz	40		dB
D. C. Input for Linear Operation	Tip to Ring, or Tip or Ring to GND		60	VDC
Low Level Output Voltage	I _{Sink} =3mA		0.4	VDC
High Level Output Voltage	See Note 2	.95	1.0	V _P
Power Supply Voltage		4.75	18	VDC
Power Supply Current	V _P ≤12VDC		15	mADC

NOTES: 1. Operate tone levels are proportional to supply voltage, adjustable by external resistance.

2. Output is open collector with 10k Ω internal pull up resistor to V_P.