

AN5730

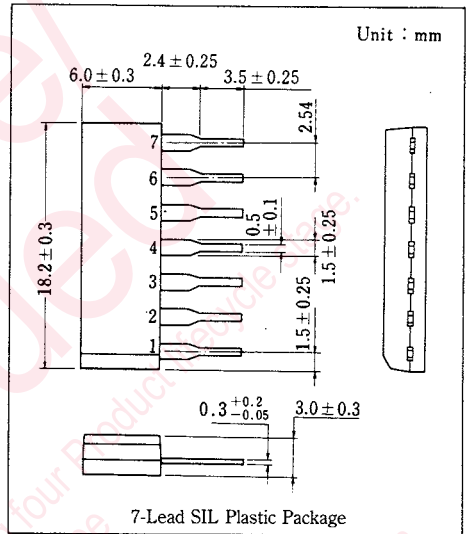
B/W TV Sound IF Amplifier, Detector Circuit

■ Outline

The AN5730 is one of IC's for the AN5700 series low voltage operation (6V) and small Black/White TV. It is an integrated circuit for B/W TV video sound IF amplifier and detector circuit.

■ Features

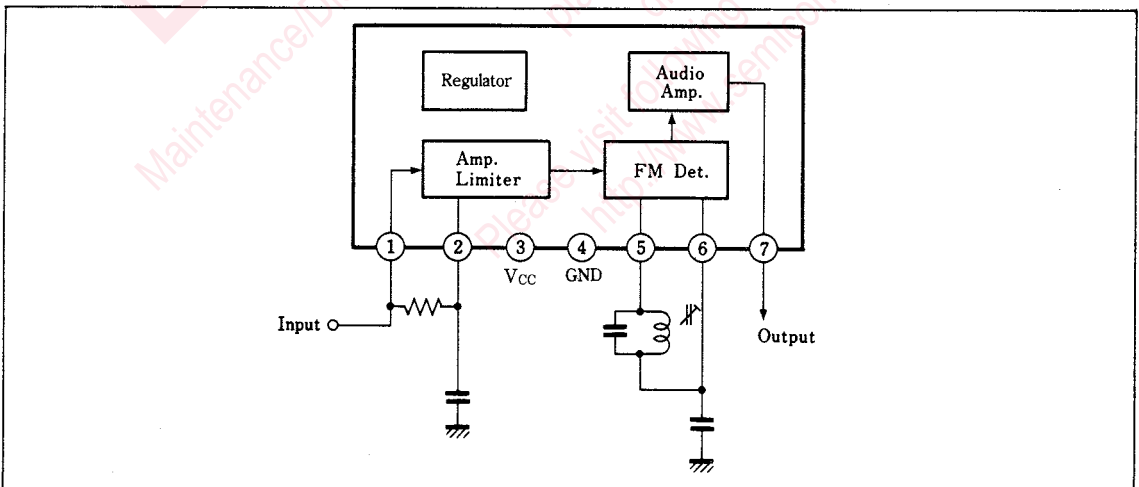
- Highly stable operation over a wide range of supply voltage
- Good ripple rejection : RR = -30dB max.



■ Pin

Pin No.	Pin Name
1	SIF Input
2	Decoupling
3	V _{cc}
4	GND
5	SIF Output
6	Detector
7	Detector Output

■ Block Diagram



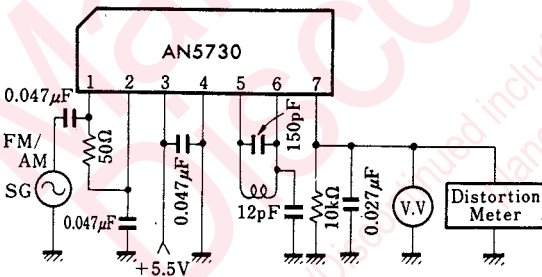
■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Supply voltage	V _{CC}	7.2	V
Power Dissipation	P _D	98	mW
Temperature	Operating Ambient Temperature	-20 ~ +70	°C
	Storage Temperature	-40 ~ +150	°C

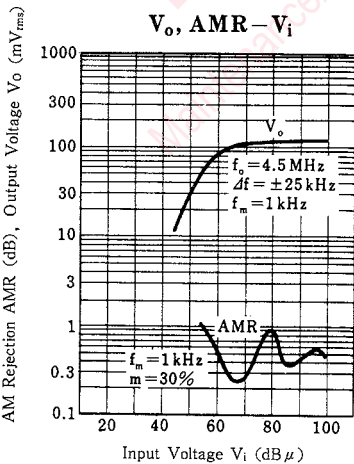
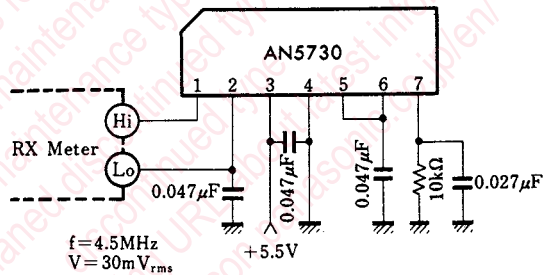
■ Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Total Circuit Current	I _{tot}		V _{CC} =5.5V	6.0	9.0	12.0	mA
Input Limiting Voltage	V _{i(lim)}	1	f ₀ =4.5MHz, f _m =1kHz, Δf=±25kHz		300	500	μV
Output Voltage (Det.)	V _O	1	f ₀ =4.5MHz, f _m =1kHz, Δf=±25kHz	70	100	130	mV _{rms}
Total Harmonic Distortion(Det.)	THD	1	V _i =100mV _{rms}		1	2	%
AM Rejection	AMR	1	f ₀ =4.5MHz, f _m =1kHz AM=30%, V _i =100mV _{rms}	34	40		dB
Ripple Rejection Ratio	RR		V ₇₋₄ change when V _{CC} is 4.5V and 5.5V			-30	dB
Input Resistance	R _i	2	f=4.5MHz, V _i =30mV _{rms}		15		kΩ
Input Capacitance	C _i	2			6		pF

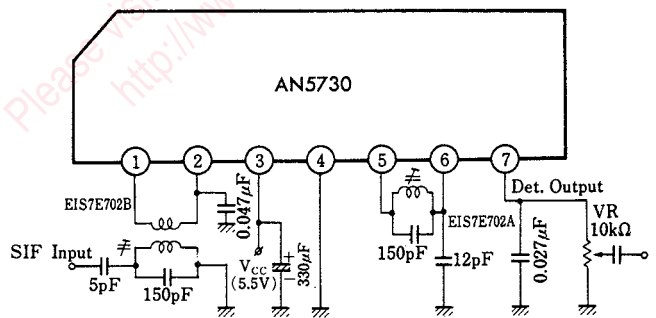
Test Circuit 1 (V_{i(lim)}, V_O, THD, AMR)



Test Circuit 2 (R_i, C_i)



■ Application Circuit



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