

AN5215

TV Sound IF Amplifier, FM Detector

■ Description

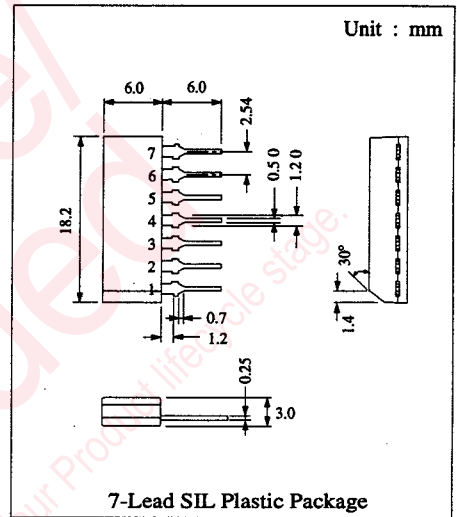
The AN5215 is an integrated circuit designed for TV sound IF amp and FM detector, and can be used for multi-channel sound application.

■ Features

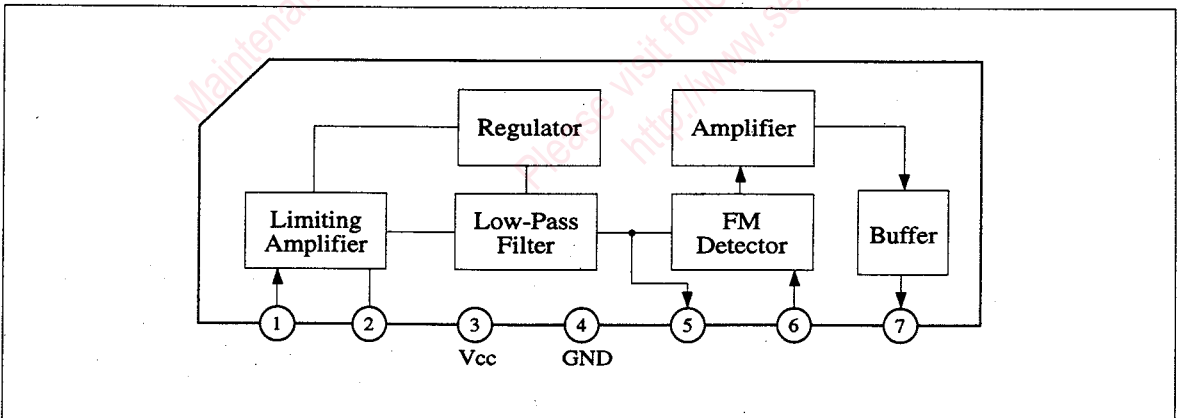
- High input sensitivity $V_{i(lim)} = 50\mu V_{rms}$ typ.
- Can be used for sound multiplex applications
- Good FM detector characteristics
- 7-lead single-in-line plastic package for flexible PCB design

■ Pin Descriptions

Pin No.	Pin Name
1	SIF Input
2	Decoupling
3	Vcc
4	GND
5	SIF Output
6	Detector
7	Detector Output



■ Block Diagram

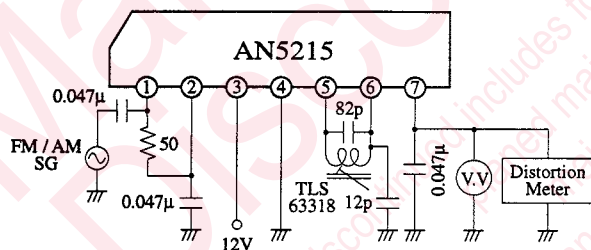
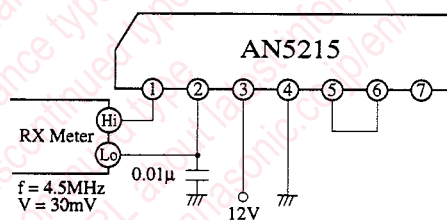


■ Absolute Maximum Ratings (Ta=25°C)

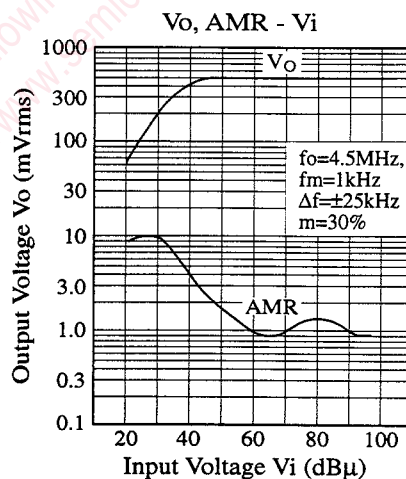
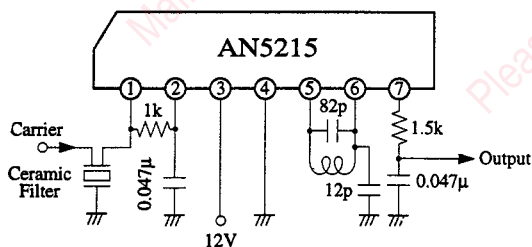
Item	Symbol	Rating	Unit
Supply Voltage	V _{CC}	14.4	V
Supply Current	I _{CC}	36	mA
Power Dissipation	P _D	520	mW
Operating Ambient Temperature (Ta=70°C)	Topr	-20 ~ +70	°C
Storage Temperature	Tstg	-55 ~ +150	°C

■ Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Total Circuit Current	I _{tot}		V _{CC} = 12V	17	23	29	mA
Input limiting Voltage	V _{i(lim)}	1	f _o = 4.5MHz, f _m = 400Hz, Δf = ±25kHz	50	100		μVrms
AM Rejection Ratio (1)	AMR1	1	f _o = 4.5MHz, f _m = 400Hz, m = 30% (AM), V _i = 100mVrms	43	53		dB
AM Rejection Ratio (2)	AMR2	1	f _o = 4.5MHz, f _m = 400Hz, m = 30% (AM), V _i = 100μVrms	27	37		dB
Total Detector Output	V _O	1	f _o = 4.5MHz, f _m = 400Hz, Δf = ±25kHz, V _i = 100mVrms	385	550	715	mVrms
Total Harmonic Distortion	THD	1	f _o = 4.5MHz, f _m = 400Hz, Δf = ±25kHz, V _i = 100mVrms		0.3	1.0	%
Input Resistance	R _{i(IF)}	2	f = 4.5MHz, V _i = 30mV	6	15	100	kΩ
Input Capacitance	C _{i(IF)}	2	f = 4.5MHz, V _i = 30mV	3	6	9	pF

Test Circuit 1 (V_{i(lim)}, V_O, THD, AMR)Test Circuit 2 (R_i, C_i)

■ Application Circuit



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