

AN6307

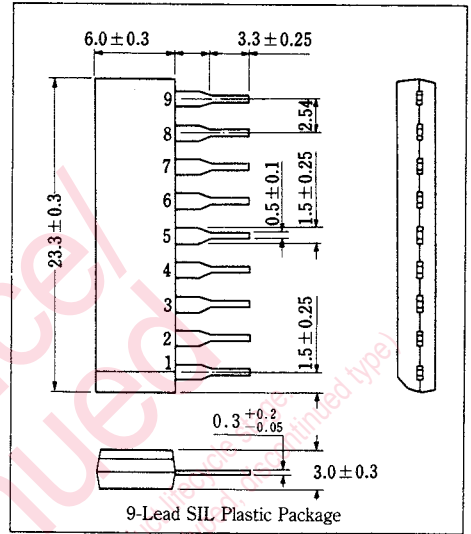
VTR Recording Amplifier Circuit

■ Outline

The AN6307 is an integrated circuit designed for VTR's recording amplifier.

■ Features

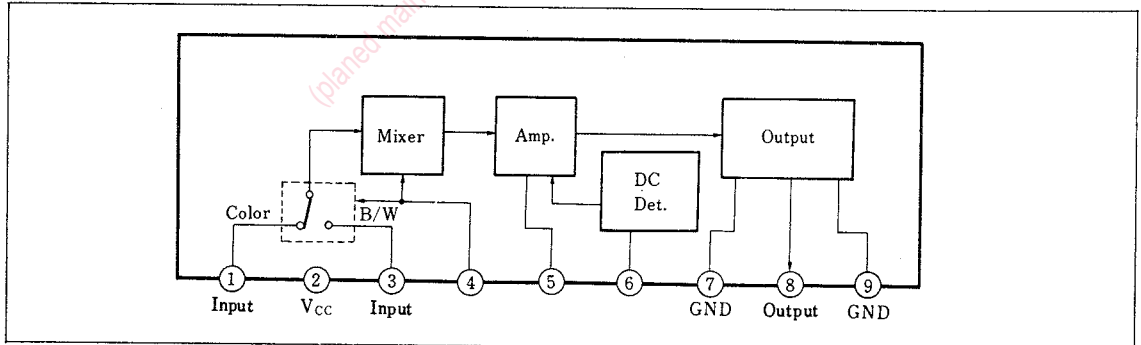
- The function consist of:
 - Mix circuit
 - Recording current amplifier
- Video head can be driver
- Supply voltage either 9V or 12V



■ Pin

Pin No.	Pin Name
1	FM Input (Color)
2	V _{cc}
3	FM Input (B/W)
4	Color Input
5	Ref. Resistance
6	Feedback
7	GND
8	Output
9	GND

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

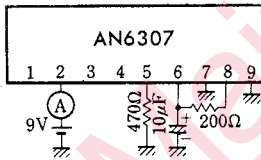
Item	Symbol	Rating	Unit
Supply voltage	V _{cc}	14.4	V
Power dissipation	P _b	600	mW
Operating ambient temperature	T _{opr}	-20~+70	°C
Storage temperature	T _{stg}	-40~+150	°C

■ Electrical Characteristics (V_{cc}=9V, Ta=25°C ± 2 °C)

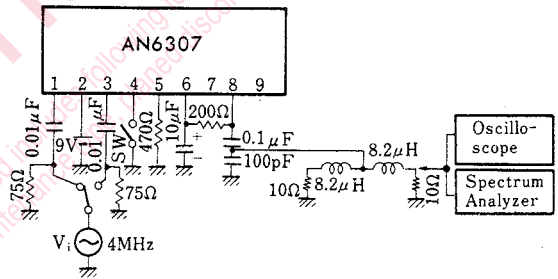
Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit	Note
Total circuit current	I _{tot}	1		22		34	mA	
Output amplitude	v _o	2	V _i =50mV _{p-p}	10		20	mV _{p-p}	
2nd harmonic distortion	D _{2f}	2	I _o =15mA _{p-p}			-35	dB	*
3rd harmonic distortion	D _{3f}	2	I _o =15mA _{p-p}			-40	dB	*
Cross talk	CT	2	I _o =15mA _{p-p}			-35	dB	
Cross modulation	CM1	3	I _o =15mA _{p-p}			-35	dB	*
Cross modulation	CM2	3	I _o =15mA _{p-p}			-40	dB	*

Note) Operating Supply Voltage Range V_{cc(oper.)} = 7.8V~13V * Design guarantee value

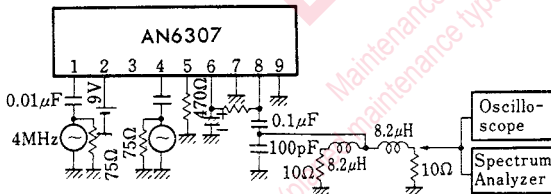
Test Circuit 1 (I_{tot})



Test Circuit 2 (v_o, D_{2f}, D_{3f}, CT)



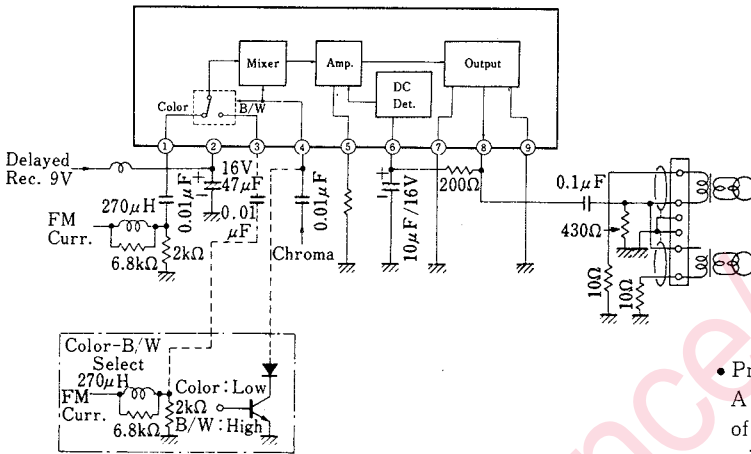
Test Circuit 3 (CM1, CM2)



Note) Output amplitude should be measured when input amplitude is conditioned V_i=50mV_{p-p}.
 Note) Output current distortion should be measured when output current is conditioned 15mA_{p-p/ch}.

Note) An output current should be conditioned 15mA_{p-p} for Pin① input only and 3.77mA_{p-p} for Pin④ input only.

■ Application Circuit



- Precaution for use
A current is changed by the resistance of the Pin⑤. Set the resistance within a range of 390 to 560Ω.

Maintenance/Discontinued

Maintenance/Discontinued includes following four Product lifecycle stage.
(planned maintenance type, maintenance type, planned discontinued typed, discontinued typed)

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