

# AN6040

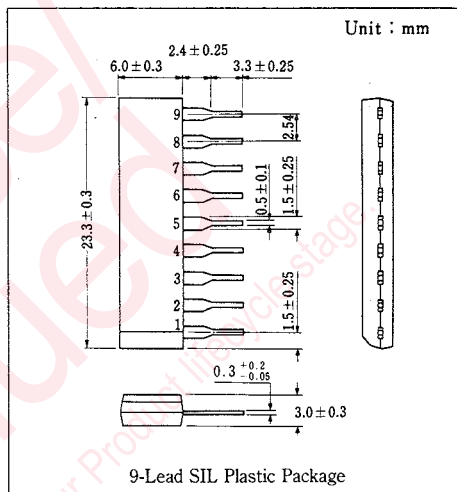
## Color Encoder for Video for Camera

### Outline

The AN6040 is an integrated circuit provided with the function which modulates color subcarrier by B-Y and R-Y signals of a video camera color encoder circuit and mixes it.

### Features

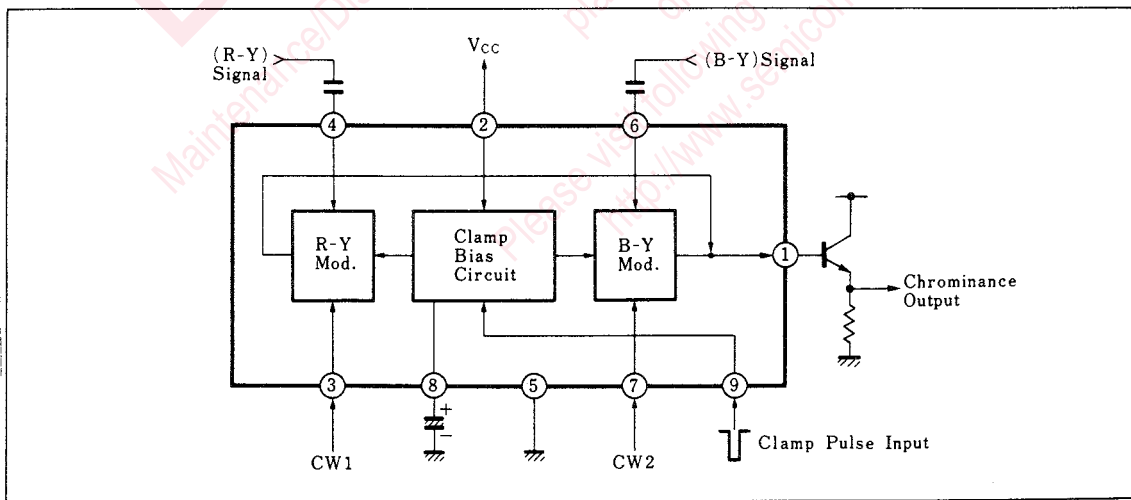
- Sub-carrier modulation by B-Y and R-Y signal
- Incorporating clamp circuit
- Outputs mixed B-Y and R-Y modulation signals



### Pin

Pin No.	Pin Name
1	Chrominance Output
2	Vcc
3	Carrier Input (1)
4	Signal Input (R-Y)
5	GND
6	Signal Input (B-Y)
7	Carrier Input (2)
8	Ref. Voltage
9	Clamp Pulse Input

### Block Diagram



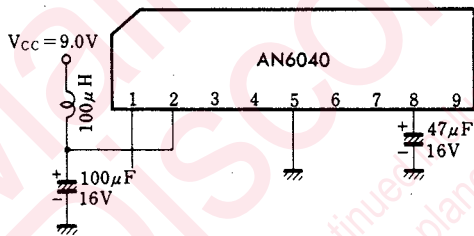
■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Supply voltage	V <sub>CC</sub>	9.5	V
Supply current	I <sub>CC</sub>	35	mA
Power dissipation	P <sub>D</sub>	333	mW
Temperature	Operating ambient temperature	-20 ~ +75	°C
	Storage temperature	-55 ~ +125	°C

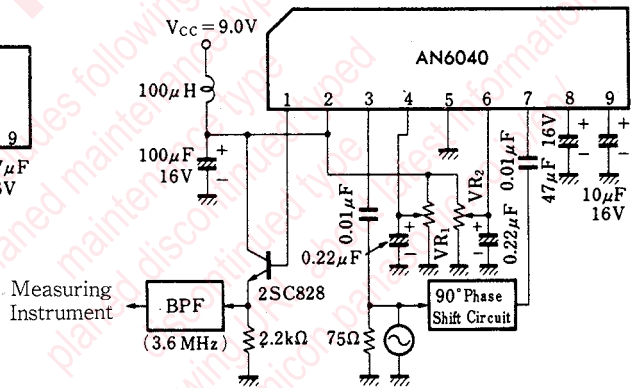
■ Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Circuit voltage	V <sub>1-5</sub>	1	V <sub>CC</sub> = 9.0V	6.2	7.0	7.9	V
	V <sub>3-5</sub>	1		1.6	2.4	3.0	V
	V <sub>7-5</sub>	1		1.6	2.4	3.0	V
	V <sub>8-5</sub>	1		5.2	6.15	6.9	V
	V <sub>9-5</sub>	1		2.8	3.3	4.2	V
Total circuit current	I <sub>tot</sub>	1		13	20	32	mA
Carrier leak	CL	2				1.0	mV <sub>rms</sub>
Output voltage	V <sub>O(1)</sub>	3		695	800	900	mV <sub>rms</sub>
Output voltage	V <sub>O(2)</sub>	4		695	800	900	mV <sub>rms</sub>

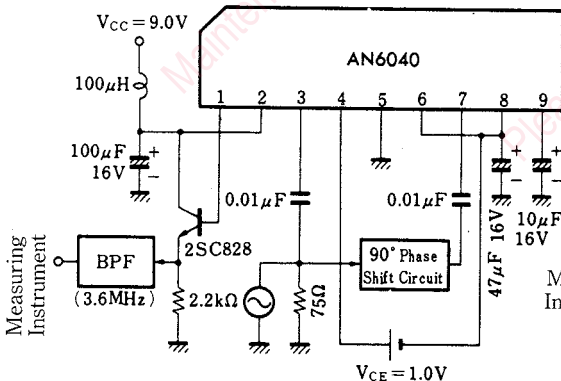
Test Circuit 1 (V<sub>1</sub>, 3, 7, 8, 9-5, I<sub>tot</sub>)



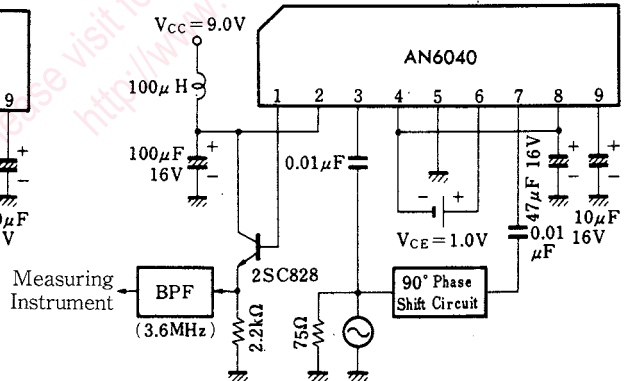
Test Circuit 2 (CL)



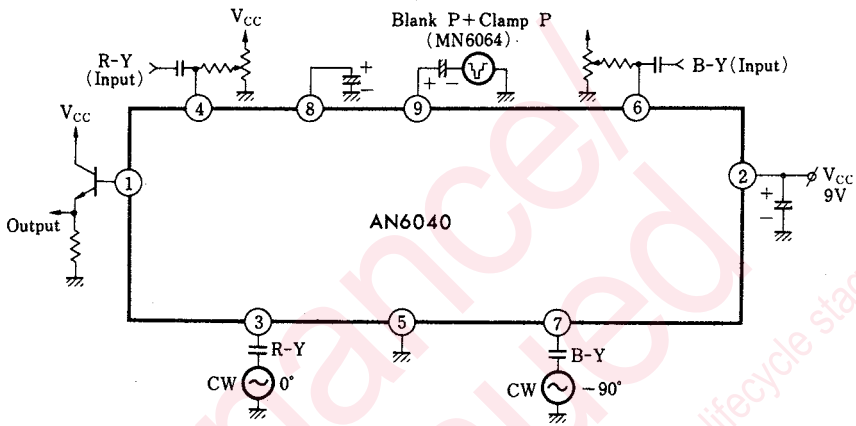
Test Circuit 3 (V<sub>O(1)</sub>)



Test Circuit 4 (V<sub>O(2)</sub>)



■ Application Circuit



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