

# AN6041

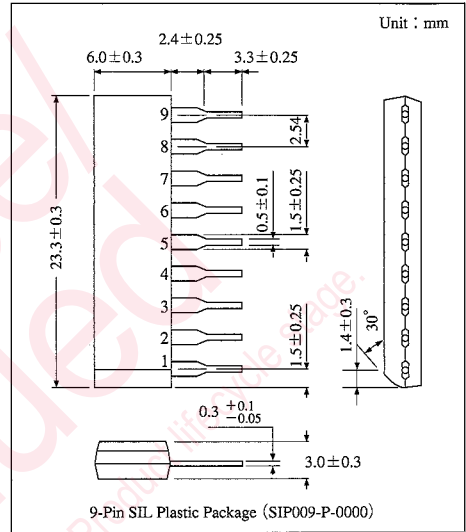
## Dual Balanced Modulator IC for Video Camera

### Overview

The AN6041 is an integrated circuit which incorporates two balanced modulators.

### Features

- Dual balanced modulator
- External bias circuit is not required
- Carrier suppression : 40dB typ.

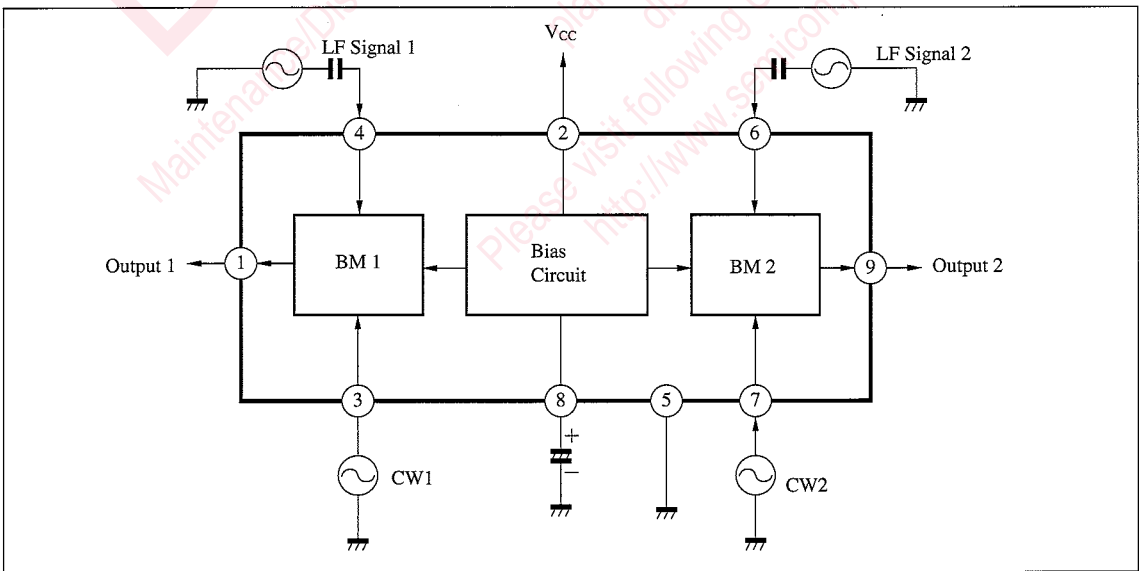


### Pin Descriptions

Pin No.	Pin name
1	Output (1)
2	V <sub>cc</sub>
3	Carrier input (1)
4	Signal input (1)
5	GND
6	Signal input (2)
7	Carrier input (2)
8	Ref. voltage
9	Output (2)

ICs for Video Camera

### Block Diagram



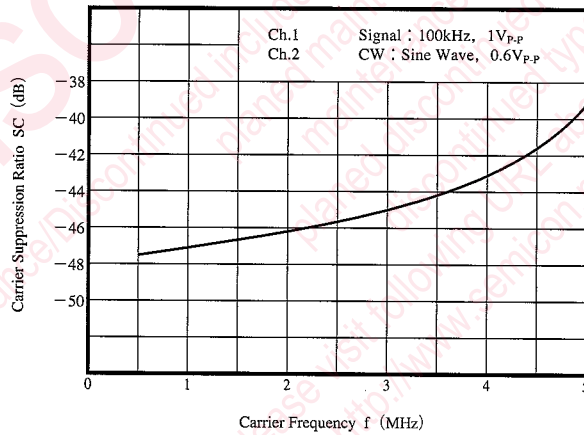
■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Supply voltage		V <sub>CC</sub>	9.5	V
Supply current		I <sub>CC</sub>	25	mA
Power dissipation		P <sub>D</sub>	240	mW
Temperature	Operating ambient temperature	T <sub>opr</sub>	-20 to +75	°C
	Storage temperature	T <sub>stg</sub>	-55 to +125	°C

■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Circuit voltage	V <sub>1-5</sub>	V <sub>CC</sub> =9V	5.7	6.3	6.9	V
	V <sub>3-5</sub>		1.9	2.4	2.9	V
	V <sub>4-5</sub>		5.5	6.1	6.7	V
	V <sub>6-5</sub>		5.5	6.1	6.7	V
	V <sub>7-5</sub>		1.9	2.4	2.9	V
	V <sub>8-5</sub>		5.5	6.1	6.7	V
	V <sub>9-5</sub>		5.5	6.0	6.7	V
Total circuit current	I <sub>tot</sub>		13	17	22	mA
Carrier leak	CL (1)		—	—	2.5	mV <sub>rms</sub>
	CL (2)		—	—	2.5	mV <sub>rms</sub>
Output voltage	V <sub>O(1)</sub>		550	650	760	mV <sub>rms</sub>
	V <sub>O(2)</sub>		550	650	760	mV <sub>rms</sub>

Carrier Suppression Ratio



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