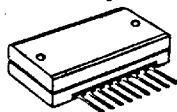


SANYO**VPH01**

FBET Hybrid IC
Video Pack (VPH Series)
Video Output Amplifiers For
Extended-Definition TV Projections

Overview

The VPH01 is Video Output Amplifier for a Extended-Definition TV Projection integrates a complete amplifier using high-precision FBET and LSBT transistor chips into a single IC, allowing very high-output voltage, wide-bandwidth video output amplifier circuits to be implemented with greatly reduced parts count. The result is that cost reduction and saving board space can be realized. VPH01's 9-pin metal SIP package also minimizes EMI problems and simplifies circuit board design.

The 18MHz bandwidth makes the VPH01 ideally suited for use with 32kHz line frequency EDTV Projection. A supply voltage of 170V is typical.

The VPH01 is one of the devices in a series of Sanyo's IC that cover the complete range of video output amplifier applications - from EDTV-projection to externally ATV/MAC-projections. Evaluation samples are available now.

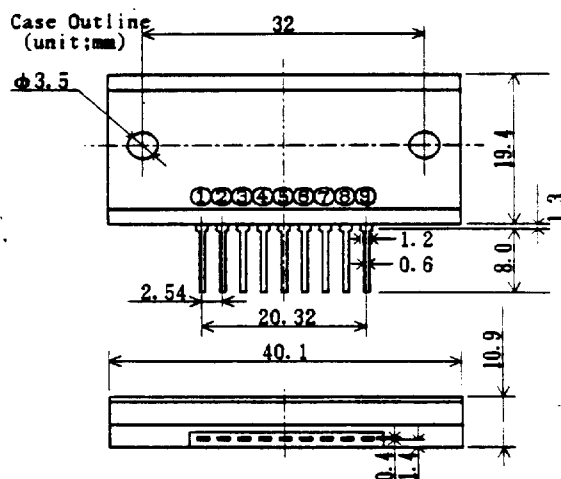
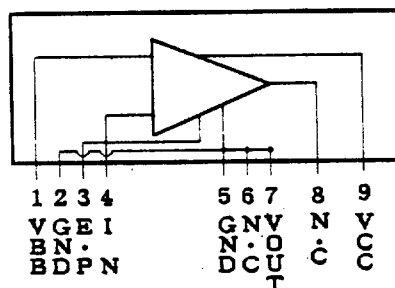
For HDTV-PROJECTION oriented applications, refer to the VPH03 Video output Amplifier System data sheets.

Features

- High performance
- Up to 100Vp-p output voltage
- 18MHz typical bandwidth
- Simplifies circuit design
- Compact package
- Metal casing reduces EMI

Absolute Maximum Ratings at Ta=25°C

		unit
Maximum Supply Voltage	VCC	230 V
	VBB	20 V
Allowable Power Dissipation	PD (Ta=25°C)	3.5 W
	PD (Tc=25°C)	20 W
Junction Temperature	TJ	150 °C
Operating Temperature	Ta(op)	85 °C
Storage Temperature	Tstg	-20 to 110 °C

Connection and Outline

Specifications and information herein are subject to change without notice.

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VPH01 (Video Pack)

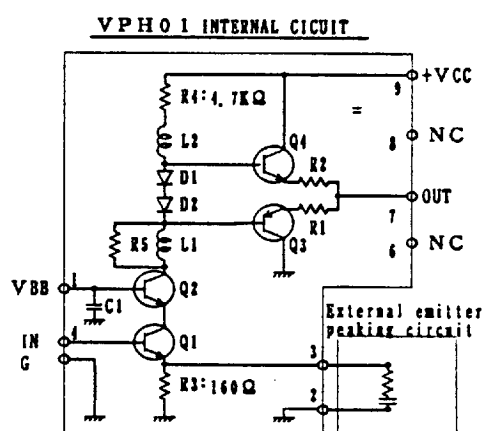
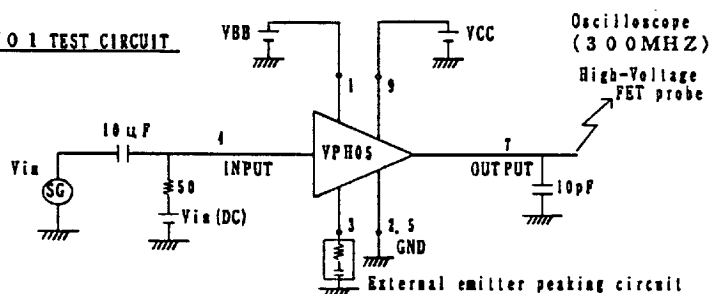
Recommended Operating Conditions at $T_a=25^\circ\text{C}$

Condition 1	VCC	Vout ~100Vp-p Vin(DC)=3.1V	unit
	VBB		150 V
Condition 2	VCC	Vout ~150Vp-p Vin(DC)=4.1V	200 V
	VBB		12 V

Electrical Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Frequency Bandwidth	$f_c(-3\text{dB})$	Condition 1	Vout=100Vp-p	15	18	MHz
		Condition 2	Vout=150Vp-p	13	15	MHz
Voltage Gain	VG(DC)		26	29	32	times
Current Dissipation	ICC(1)	Condition 1	f=10 MHz clock	29		mA
	ICC(2)	Condition 1	f=18 MHz clock	35		mA
	ICC(3)	Condition 2	f=10 MHz clock	43		mA
	ICC(4)	Condition 2	f=15 MHz clock	47		mA

Equivalent Circuit

VPH01 TEST CIRCUIT

Precautions

- 1) Do not short the pins, or degradation may occur.
- 2) On heat sink design and test board condition, refer to the technical document "Sanyo Video Pack".
- 3) Case is connected to the internal GND.
- 4) The mounting torque should be in the range of 4 to 5Kg·cm

VPH01

