Video Pack Internal View

High performance guaranteed: Reduction of
turnaround time and EMI-free systems

Video Packs

Hybrid intergrated circuits/with FBET/LSBT process chips/Wide bandwidth
video output ICs

Year by year, there is an ever-increasing for higher-resolu-
tion CRT displays and a corresponding demand for wider band-
width video output circuits for these displays.

Up till now, however, it has been difficult to design these cir-
cuits efficiently because component technology peculiar to de-
signing high frequency circuits has been unavailable.

Sanyo has solved this problem with the introduction of the
VPA series "Video Pack products." VPA series products com-
prise bare-chip video output transistors, developed using
Sanyo's FBET/LSBT process technology, and feature band-
widths up to 180 MHz.

Recently, there has been an increasing demand in audiovi-
sual systems for larger screens with higher resolution. These
all require large amplitude characteristics over a wide fre-
quency bandwidth.

Sanyo has developed high output products (VPH series) to
meet these needs in applications from AV television to high-
vision. We have also added another series of products to our
product line-up which feature high-density mounting for use in
personal computer displays. These products, the "VPM series
with heatsink", have three high-output channels per pack.

The Sanyo product line-up reduces turnaround time and en-
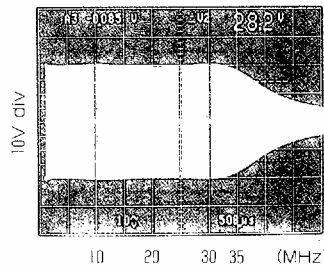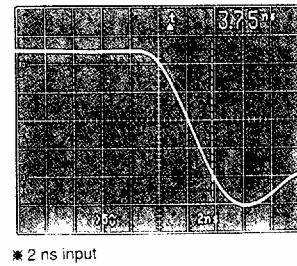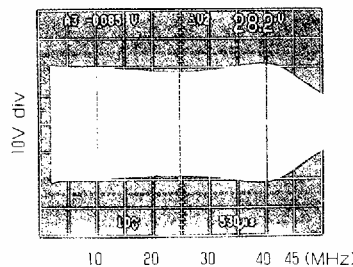sures good repeatability.

Video Pack application map

Video frequency, fv (MHz)
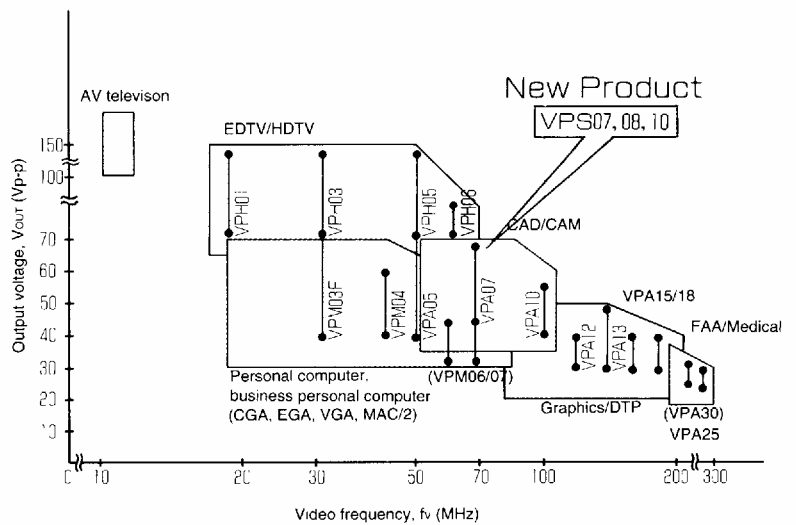
Video Pack mounting example

VPH05
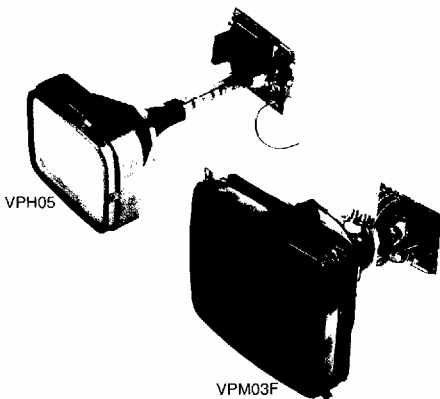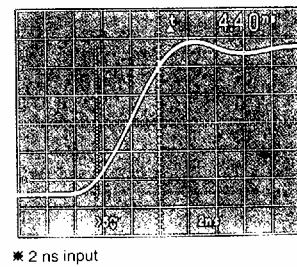
VPM03F

VPM03/03F (Ch. 1)
Sweep output waveform

10V div

10   20   30 35   (MHz)

VPA12
Output pulse response (tf)

✳ 2 ns input

VPM04/04F (Ch. 1)
Sweep output waveform

10V div

10   20   30   40 45 (MHz)

VPA12
Output pulse response (tr)

✳ 2 ns input

9-pin metal package   Internal view   Package without heatsink   15-pin molded package   F type package (with heatsink)
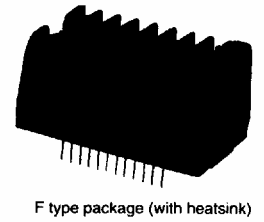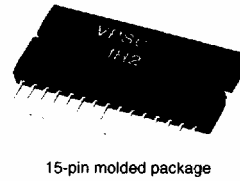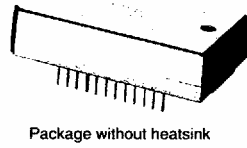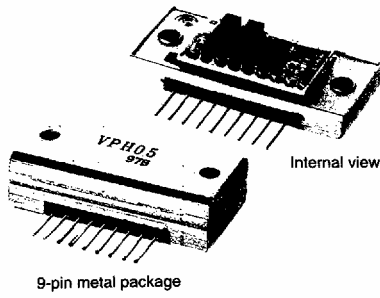
● Recommended Video Pack line-up for CRT displays   ＊Under development

Application field (horizontal deflection frequency)	Type No.	Maximum supply voltage Vcc max (V)	Video frequency			Gain (D·C)	No. of channels	Package type
			fv(typ -3dB)					
			(MHz)	Vout (Vp-p)	Vcc (V)			
Personal computers Business computers (up to 48 kHz)	VPM03	160	30	60	100	26	3	F: Heatsink provided No indicator: Without heatsink
	VPM03F	120	30	50	90	26		
	VPM04	120	45	50	90	19		
	VPM04F	120	45	40	80	19		
	VPM05	120	50	40	80	19		
CAD/CAM (48 to 56 kHz)	VPM06	120	60	40	80	19		
	VPM07	120	70	40	90	19		
	VPS07	120	70	50	90	22		15-pin molded package
	VPS08	120	80	50	90	20		
	VPA05	120	50	60	100	29	1	9-pin metal package
	VPA07	120	70	50	90	29		
Graphics DTP (64 to 85 kHz)	VPS10	120	100	50	90	20	3	15-pin molded package
	VPA10	100	100	45	100	14	1	9-pin metal package
	VPA12	90	120	40	80	14		
	VPA13	120	130	45	80	14		
FAA Medical (up to 130 kHz)	VPA15	90	150	40	80	14		
	VPA18	90	180	40	80	14		
	VPA25	80	230	30	70	14		
	VPA30＊	Being planned						

● Recommended Video Pack line-up for ED/HDTV applications

EDTV	VPH01	230	18	100	150	29	1	9-pin metal package
HDTV	VPH03	230	30	100	170	29		
	VPH05	230	50	100	170	29		
	VPH06	230	65	100	170	29		

● Video Pack circuit configuration   ● Peripheral circuit for VPA series

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