

Structure Silicon Monolithic Integrated Circuit

Product name 3V operation Video driver (with LPF for mobile applications)

Model **B H 7 6 1 1 2 H F V**

Outer dimensions Fig 1 HVS0F6 (Plastic mold)

Application circuit Fig 2

- Function
- Built in 12dB AMP
 - Built in LPF(8order) for Y input (f=4.5MHz)
 - Sync Tip clamp circuit
 - HVSOF6 plastic mold
 - Built in standby function (Standby current is 0μA; TYP)
 - Operating voltage 3V (Dynamic range 2.6Vpp)

■ Absolute maximum rating

Parameter	Symbol	Rating	Unit
Supply voltage	Vcc	7	V
Power Dissipation	Pd	* 410	mW
Operating temperature range	Topr	− 40 ~ + 85	°C
Storage temperature range	Tstg	− 55 ~ + 125	°C

* For operation above 25°C free-air temperature , power dissipation is decreasing 4.1mW/°C in case mounting the ROHM standard application board (70×70×1.6mm)

■ Operating voltage range

Parameter	Symbol	Min.	Std.	Max.	Unit
Operating voltage range	Vcc	2.6	3.0	5.5	V

■Electrical characteristics 【Ta=25°C, VCC=3V unless otherwise specified】

Parameter		Symbol	Specifications			Unit	Testing condition
			Min.	Std.	Max.		
Circuit current	ACTIVE	I _{CC1}	—	7	11	mA	No Signal
	STANBY	I _{CC2}	—	0.0	2	μA	Standby mode
Standby SW input current Voltage	HighLevel	I _{thH}	—	—	60	μA	6pin=3.0V
	Low Level	I _{thL}	—	—	4	μA	6pin=0.2V
Standby SW Change Voltage	HighLevel	V _{thH}	1.2	—	V _{cc}	V	Standby OFF
	Low Level	V _{thL}	0	—	0.45	V	Standby ON
Voltage gain		GV	+11.5	+12.0	+12.5	dB	V _{in} =100KHz, 0.5V _{pp}
Maximum output level		V _{omv}	2.2	2.6	—	V _{pp}	f=10KHz、THD=1%
Frequency characteristics	1	G _{f1}	-1.0	0.1	0.5	dB	f=4.5MHz/100KHz,0.5V _{p-p}
	2	G _{f2}	-7.0	-4.0	0.3	dB	f=8.2MHz/100KHz,0.5V _{p-p}
	3	G _{f3}	—	-45.0	—	dB	f=19MHz/100KHz,0.5V _{p-p}
Y signal output S / N		SN _Y	—	-67.0	—	dB	Band 100KHz~6MHz Terminal impedance 75Ω, 100% White video signal
C signal output S / N	AM	SN _{CA}	—	-77.0	—	dB	Band 100Hz~500KHz Terminal impedance 75Ω, 100% chroma video signal
	PM	SN _{CP}	—	-65.0	—	dB	
Different Gain		D _G	—	0.7	3.0	%	V _{in} = 0.5V _{p-p} Standard stair step signal
Different Phase		D _P	—	0.7	3.0	deg	

■Control Terminal

PARAMETER	STATUS	NOTE
STANDBY (6PIN)	H	STANDBY : OFF
	L	STANDBY : ON
	OPEN	STANDBY : ON

■Physical dimensions

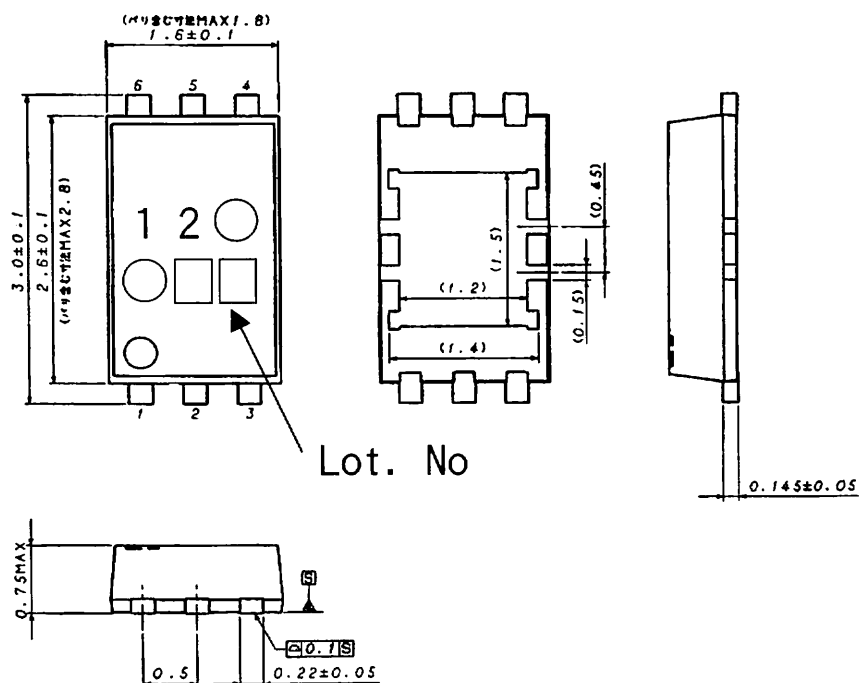
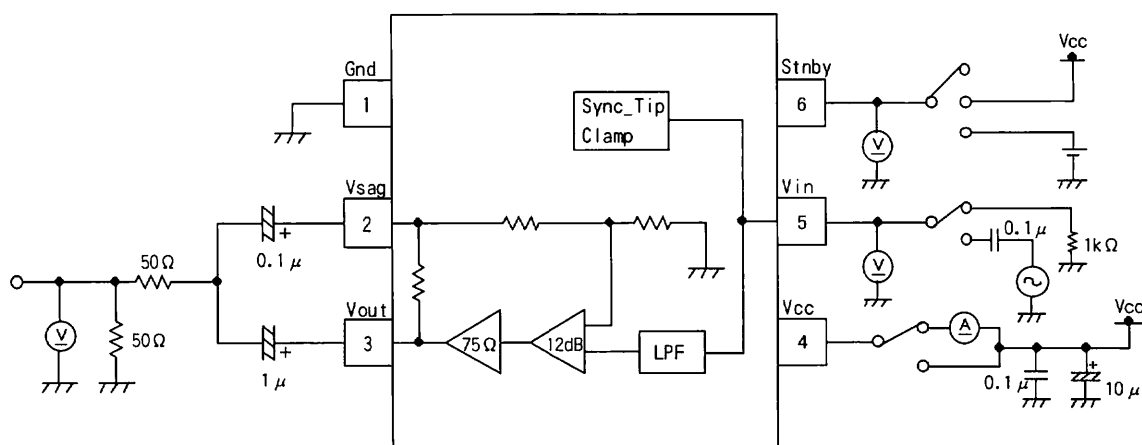


Fig.1 HV S O F 6 (Plastic mold) (UNIT: mm)

■Measurement circuit



Application circuit

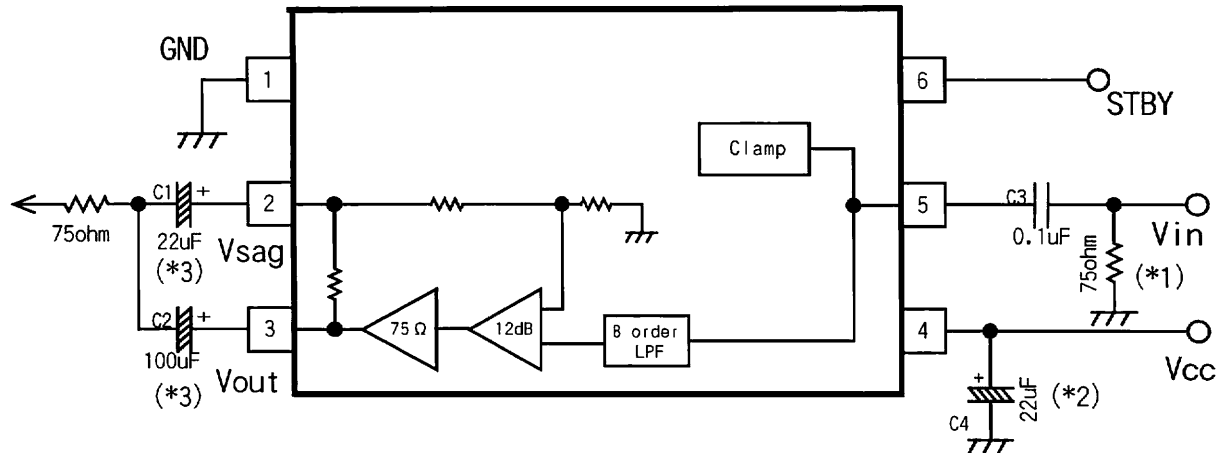


Fig 2

Notification on use

- *1; The termination impedance of the input terminal (pin#5) should be less than 700ohm.
- *2; Connect bypass capacitor as close to Vcc pin (pin#4).
- *3; The recommended value of output coupling capacitor is indicated in Fig2.
If the value of output coupling capacitor is reduced, you should check sag effect by white-black bounds signal or Hbar signal.
(white-black bounds signal, Hbar signal ;The signal that easily worsens sag effect)
- Please test the following combination as reference.
(Note: When lowering C2 capacitor value, sag deteriorates.)

C1	33 μ F	33 μ F	33 μ F
C2	68 μ F	47 μ F	33 μ F

- *4; Pay particular attention on pin assignment to prevent irreversible damage to the IC.

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