

**SANYO****STK5372H**

Thick Film Hybrid IC

Voltage Regulator for VTR

TENTATIVE

Case Outline : 8 pins (See attached case outline drawing.)

Function : Series regulator

Use : Voltage regulator for VTR

Features : On-chip 3 outputs, cutoff function

Absolute Maximum Ratings at Ta = 25°C

		Vo 1	Vo 2	Vo 3	unit
Storage Temperature	Tstg	-30 to +105	-30 to +105	-30 to +105	°C
Operating Case Temperature	Tc max	105	105	105	°C
Maximum DC Input Voltage	Vin (DC) max	30	30	20	V
Maximum Output Current*1	Io max	0.8	0.8	1.0	A
	Average	1.0	1.5	2.0	A
	Peak	1.0	1.5	2.0	A
Junction Temperature	Tj max	150	150	150	°C
Thermal Resistance	θj-c	7.0	7.0	7.0	°C/W

Electrical Characteristics at Ta = 25°C

	Condition	Vo 1	Vo 2	Vo 3	unit
Output Voltage Setting*2	①	12.1 ± 0.1	12.0 ± 0.2	5.3 ± 0.1	V
Ripple Voltage	⑥	5	5	5	mVpp max
Output Cutoff Residual Voltage*3	①	12.1 ± 0.13	0.1	0.1	V max
Temperature Coefficient	①	0.02	0.02	0.025	%/°C max
Line Regulation	②	10	10	2	mV/V max
	③	2	2	2	mV/V max
	④	50	300	50	mV/A max
Load Regulation	④	50	300	50	mV/A max
Minimum Input-Output Voltage Difference	⑤	1.2	—	1.2	V max

Condition ① : VB = 45V, Vin (DC) 1 = 16V, Vin (DC) 2 = 9V  
Io1 = 0.2A, Io2 = 0.5A, Io3 = 0.5ACondition ② : VB = 45V ± 5V, Vin (DC) 1 = 16V, Vin (DC) 2 = 9V  
Io1 = 0.2A, Io2 = 0.5A, Io3 = 0.5ACondition ③ : VB = 45V, Vin (DC) 1 = 13.5V to 18.5V, Vin (DC) 2 = 6.7 to 11.3V  
Io1 = 0.2A, Io2 = 0.5A, Io3 = 0.5ACondition ④ : VB = 45V, Vin (DC) 1 = 16V, Vin (DC) 2 = 9V  
Io1 = 0A to 0.5A, Io2 = 0A to 0.6A, Io3 = 0.1A to 1.0A

Condition ⑤ : VB = 45V, Io1 = Io3 = 0.5A, Io2 = 0, IB1 = 2mA

Condition ⑥ : VB = 45V, Vin (DC) 1 = 16V, Vin (DC) 2 = 9V, Input ripple voltage = 1.5Vp-p  
Io1 = 0.2A, Io2 = Io3 = 0.5A

\*1. Peak current : 0.2sec. max

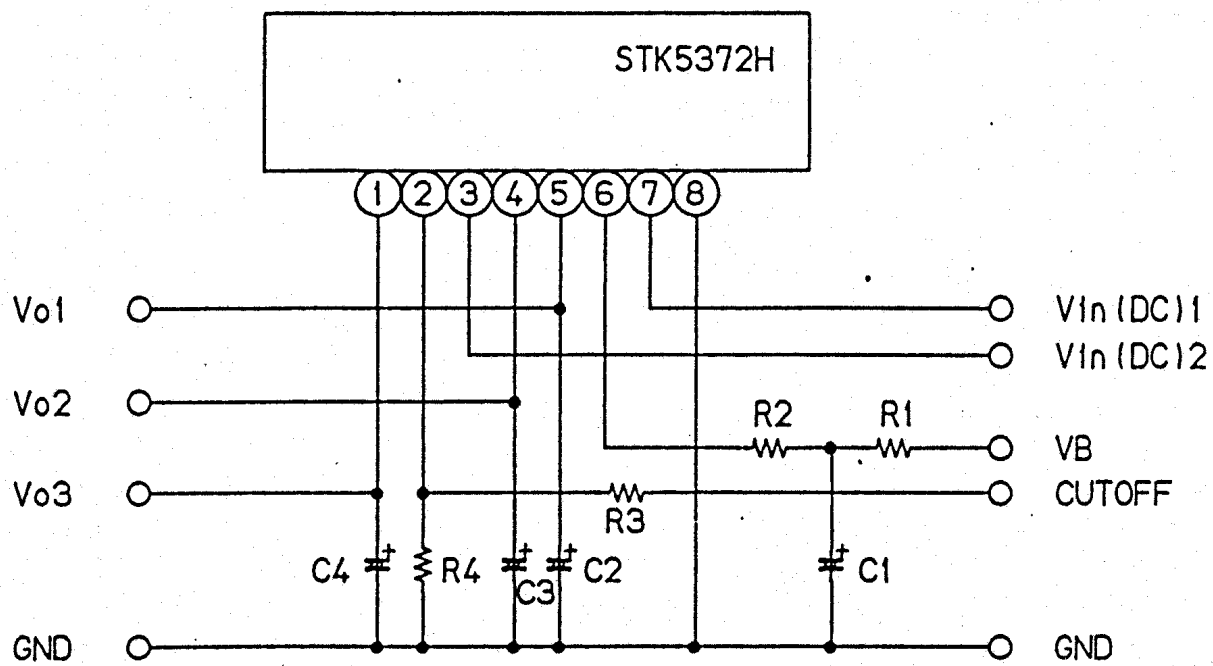
\*2. Measurement must be made within 1 to 2sec. after input switch ON in the STK5372H Test Circuit.

\*3. When the CUTOFF pin in the STK5372H Test Circuit is at High level (3V to 15V), Vo2, Vo3 are in ON state.

When the CUTOFF pin in the STK5372H Test Circuit is at Low level (0.6V or less), Vo2, Vo3 are in OFF state.

The application circuit diagrams and circuit constants

# STK5372H Test Circuit



C1	100 $\mu$ F/35V	R1	10K $\Omega$
C2	47 $\mu$ F/25V	R2	5.6K $\Omega$
C3	47 $\mu$ F/25V	R3	22K $\Omega$
C4	47 $\mu$ F/16V	R4	22K $\Omega$

## Case Outline

(unit : mm)

