

**SANYO****STK5464**

Thick Film Hybrid IC

Voltage Regulator for VTR

TENTATIVE

Case Outline : 12 pins (See attached case outline drawing.)

Function : Series regulator

Application : Voltage regulator for VTR

Features : On-chip 3 outputs

Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$ 

		Vo 1	Vo 2	Vo 3	unit
Storage Temperature	Tstg		-30 to +105		$^\circ\text{C}$
Operating Case Temperature	Tc max		105		$^\circ\text{C}$
Maximum DC Input Voltage	Vin (DC) max	30	30	20	V
Maximum Output Current	Io max	1.0	1.0	1.0	A
	Average *2 Peak	2.0	2.0	2.0	A
Junction Temperature	Tj max		150		$^\circ\text{C}$
Thermal Resistance	$\theta_{j-c}$	7.0	7.0	7.0	$^\circ\text{C/W}$
Operating Temperature	Topr		0 to +85		$^\circ\text{C}$

Electrical Characteristics at  $T_a = 25^\circ\text{C}$  (See Test Circuit.)

	Condition	Vo 1	Vo 2	Vo 3	unit
Output Voltage Setting	①*1	$12.0 \pm 0.3$	$12.0 \pm 0.1$	$5.3 \pm 0.1$	V
Ripple Voltage	①	20	5	5	mVpp max
Output Cutoff Residual Voltage	①*3	0.1	0.1	$5.3 \pm 0.13$	V max
Temperature Coefficient	①	0.02	0.02	0.03	$\% / ^\circ\text{C}$ max
Line Regulation	②	10	10	10	mV/V max
	③	20	2	2	mV/V max
Load Regulation	④	150	45	45	mV/A max
Minimum Input-Output Voltage Difference	⑤	1.2	1.2	1.2	V max

Condition ① :  $V_B = 45\text{V}$ , ripple 6Vpp

Vin (DC) 1 = 16V Io1 = 0.5A input ripple 1.5Vpp

Vin (DC) 2 = 8V Io2 = 0.5A Io3 = 0.5A input ripple 1.5Vpp

Condition ② :  $V_B = 45\text{V} \pm 6\text{V}$ 

Vin (DC) 1 = 16V Io1 = 0.5A

Vin (DC) 2 = 8V Io2 = 0.5A Io3 = 0.5A

Condition ③ :  $V_B = 45\text{V}$ 

Vin (DC) 1 = 13.5V to 20V Io1 = 0.5A

Vin (DC) 2 = 6.6 to 10V Io2 = 0.5A Io3 = 0.5A

Condition ④ :  $V_B = 45\text{V}$ 

Vin (DC) 1 = 16V Io1 = 0.3A to 1A Io3 = 0.1A to 1A

Vin (DC) 2 = 8V Io2 = 0.1A to 1A

Condition ⑤ :  $V_B = 45\text{V}$  Io1 = Io2 = Io3 = 0.5A

\*1. Measurement must be made within 1 to 2sec. after input switch ON in the STK5464 Test Circuit.

\*2. Peak current : 0.1sec. max

\*3. When pin 10 is at Hi level (3V to 15V), Vo1 is in OFF state.  
When pin 10 is at Low level (0.6V or less), Vo1 is in ON state.

The application circuit diagrams and circuit constants herein are included as an example and provide no guarantee for designing equipment to be mass-produced. The information herein is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

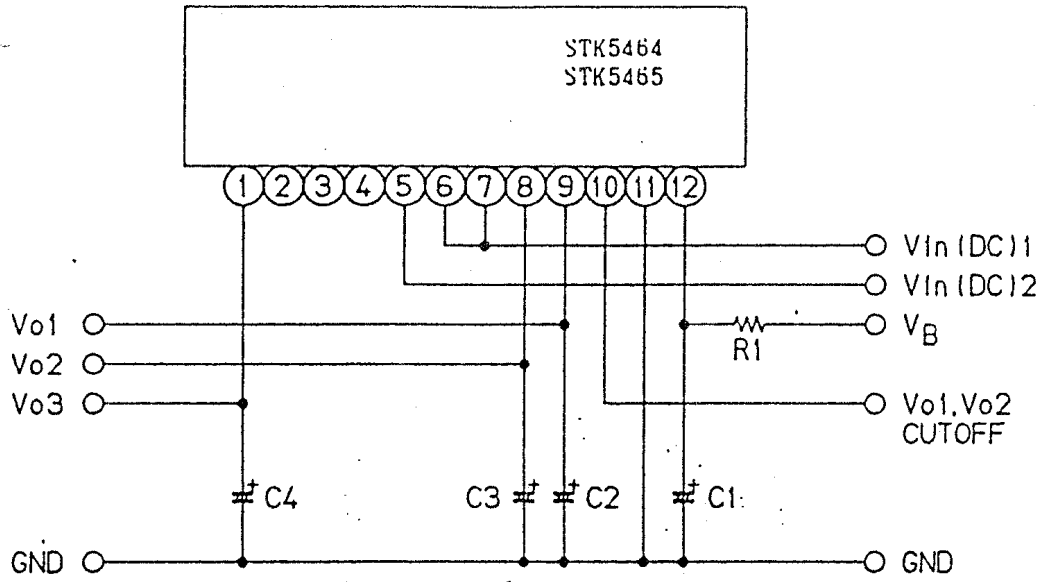
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N118TA, TS, STK5464-1/4



STK5464,5465 Test Circuit



- |    |             |    |                 |
|----|-------------|----|-----------------|
| R1 | 1K $\Omega$ | C1 | 100 $\mu$ F/50V |
|    |             | C2 | 47 $\mu$ F/25V  |
|    |             | C3 | 47 $\mu$ F/25V  |
|    |             | C4 | 47 $\mu$ F/10V  |

Case Outline  
(unit : mm)

