

SANYO	No.1712C	STK7563A
		Chopper Type Parallel 2-Output Voltage Regulator

Applications

- Serial printers, line printers, office automation equipment
- Floppy disk units, portable VCRs

Features

- 2 outputs for microcomputer power supply (5V) and motor drive power supply (24V) and capable of delivering 2 regulated voltage outputs from 1 rectifier
- Chopper type permitting high efficiency, and separate excitation type oscillator common to 2 outputs causing no beat trouble
- Independent overcurrent protectors for 2 outputs (Foldback characteristics)
- External signal-used output cutoff function (Output 2)
- High-precision setting of output voltage eliminating the need to use a variable resistor for adjustment
- One input/output GND line making it possible for other negative voltage to be used jointly
- A negative voltage regulator (-5V, -12V, etc.) can be connected externally.
- Output voltage, output current constituting a series

Maximum Ratings at Ta = 25°C

		Output 1	Output 2	unit
Maximum DC Input Voltage	$V_{in(DC)} \text{ max}$	50	50	V
Maximum Output Current	$I_O \text{ max}$	2	2	A
	A_v P_k	2.4	4	A
Thermal Resistance	θ_{j-c}	4.9	4.9	°C/W
Operating Case Temperature	T_c		105	°C
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}	-30 to +105		°C

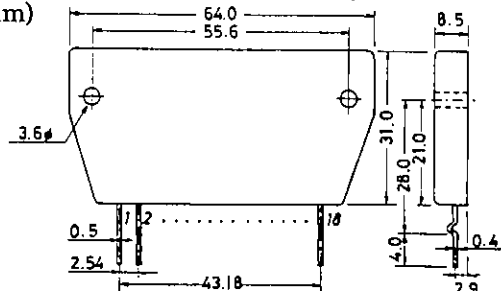
Operating Characteristics at Ta = 25°C,

	See specified Test Circuit.	Output 1			Output 2			unit
		min	typ	max	min	typ	max	
Output Voltage	Condition 1	4.9	5.0	5.1	23.6	24.0	24.4	V
Ripple Voltage	Condition 1			5			20	mVrms
Line Regulation	Condition 2			25			30	mV/V
Load Regulation	Condition 3			80			50	mV/A
Overcurrent Trip Start Current	Condition 4	2.4			4			A
Efficiency	Condition 1	80% typ at outputs 1,2 operating mode						
Operating Frequency	Condition 1	35kHz typ at outputs 1,2 operating mode						
Cutoff Voltage	Condition 1	-						
		3V or more ON 1V or less OFF						
Temperature Coefficient	Condition 1	-0.025			-0.01			%/°C

- (Note) Condition 1 : $V_{in(DC)} = 35V, 5V1A, 24V1A$
 Condition 2 : $V_{in(DC)} = 30 \text{ to } 40V, 5V1A, 24V1A$
 Condition 3 Output 1 : $V_{in(DC)} = 35V, 5V1 \text{ to } 2.4A$
 Output 2 : $V_{in(DC)} = 35V, 12V1 \text{ to } 4A$
 Condition 4 : $V_{in(DC)} = 35V$

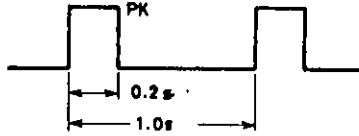
Package Dimensions 4049

(unit : mm)

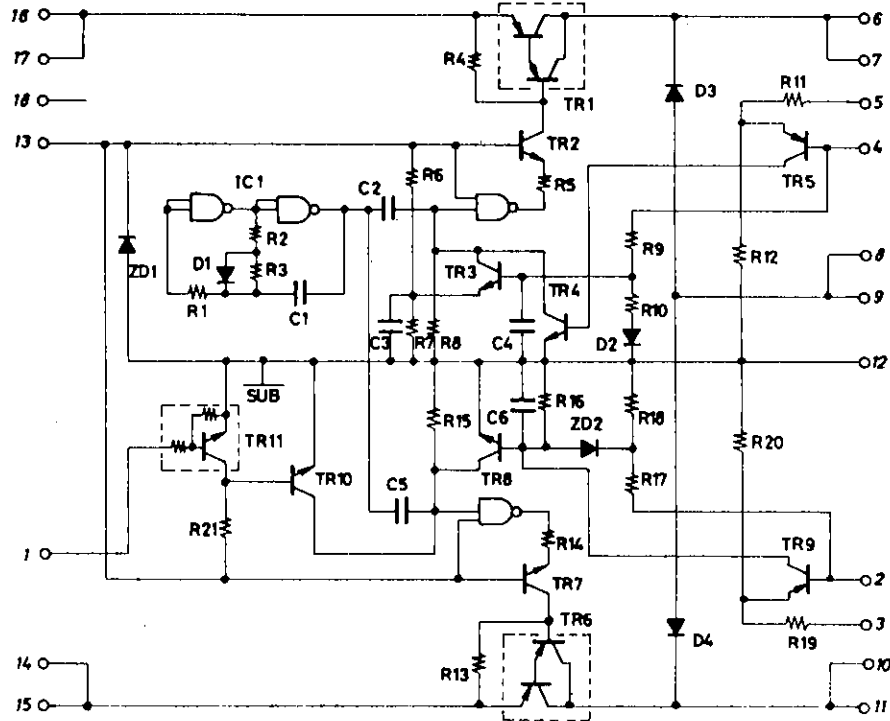


STK7563A

Definition of Peak Current

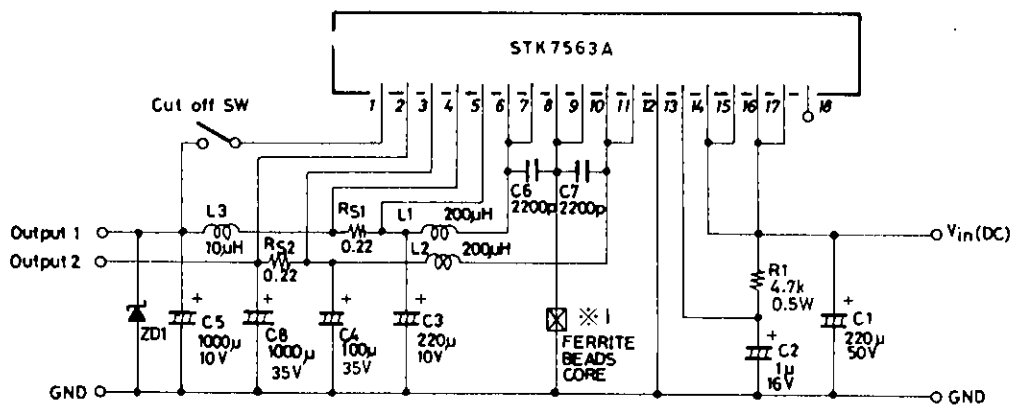


Equivalent Circuit



- Since pin 12 is grounded to the substrate, noise may be affected when a heat sink is connected to the FG (Frame Ground), GND line, etc.
In this case, bring the heat sink to floating state or use an insulating sheet.

Test Circuit



ZD1 : Vz ≒ 6.8V/D.H.D. type (for overvoltage protection)

Unit (resistance: Ω, capacitance: F)

*The N.C. pin (pin 18) must not be used as a relay pin for other line, pin.

*Pins connected inside the IC (6-7, 8-9, 10-11, 14-15, 16-17) must be also connected on the printed circuit board.

- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.