

SANYO	No.1693C	STK7561J
	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 (12V) 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)} max	50	50	V
Maximum Output Current	I _O max	Av	2	A
		Pk	4	A
Thermal Resistance	θ _{j-c}	2.7	4.7	°C/W
Operating Case Temperature	T _c	105		°C
Junction Temperature	T _j	150		°C
Storage Temperature	T _{stg}	-30 to +105		°C

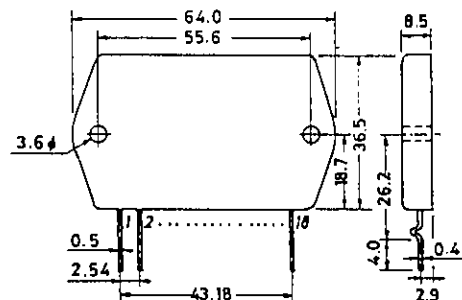
Operating Characteristics at Ta = 25°C,

	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	11.8	12.0	12.2	V
Ripple Voltage	Condition 1				5			20 mVrms
Line Regulation	Condition 2				25			20 mV/V
Load Regulation	Condition 3				80			40 mV/A
Overcurrent Trip Start Current	Condition 4	6			4			A
Efficiency	Condition 5	70% 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)} = 25V, 5V1A, 12V1A
 Condition 2 : V_{in(DC)} = 20 to 30V, 5V1A, 12V1A
 Condition 3 Output 1 : V_{in(DC)} = 25V, 5V1 to 6A
 Output 2 : V_{in(DC)} = 25V, 12V1 to 4A
 Condition 4 : V_{in(DC)} = 25V
 Condition 5 : V_{in(DC)} = 25V, 5V2.5A, 12V1A

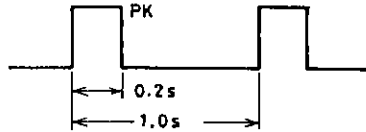
Package Dimensions 4050

(unit : mm)

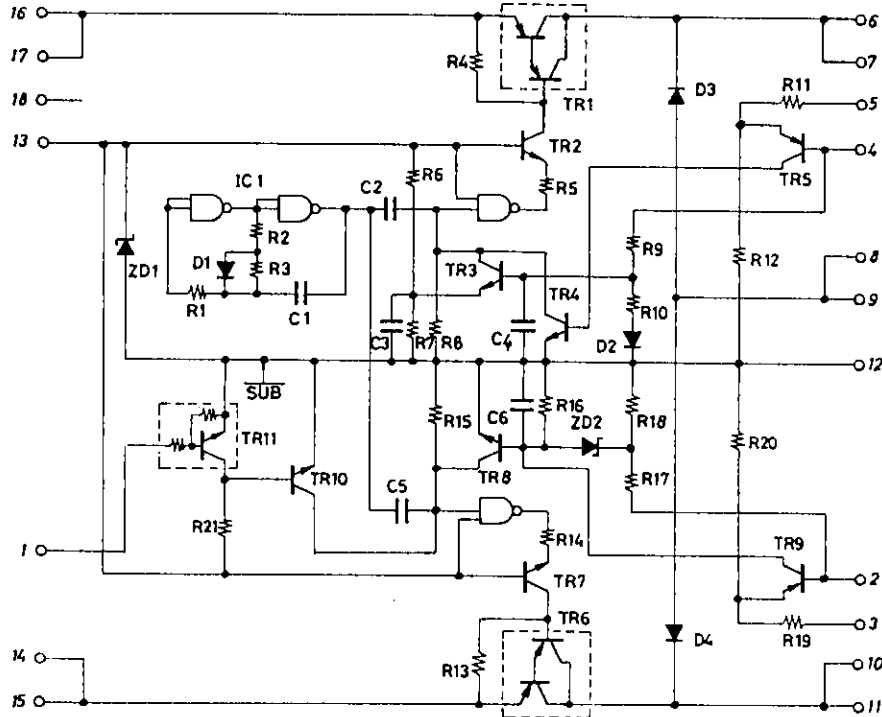


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Definition of Peak Current

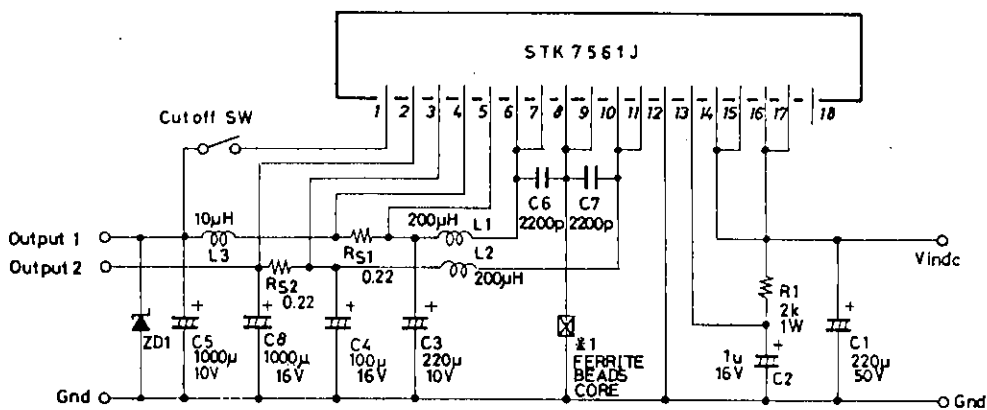


Equivalent Circuit



- 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.

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