SGS-THOMSON MICROELECTRONICS

GS5T24-5D15

5W TRIPLE OUTPUT DC-DC CONVERTER

Type	V_i	V_o	I_o
GS5T24-5D15	17,5 to 30	+ 5 V	200 mA
		+ 15 V	125 mA
		- 15 V	– 125 mA

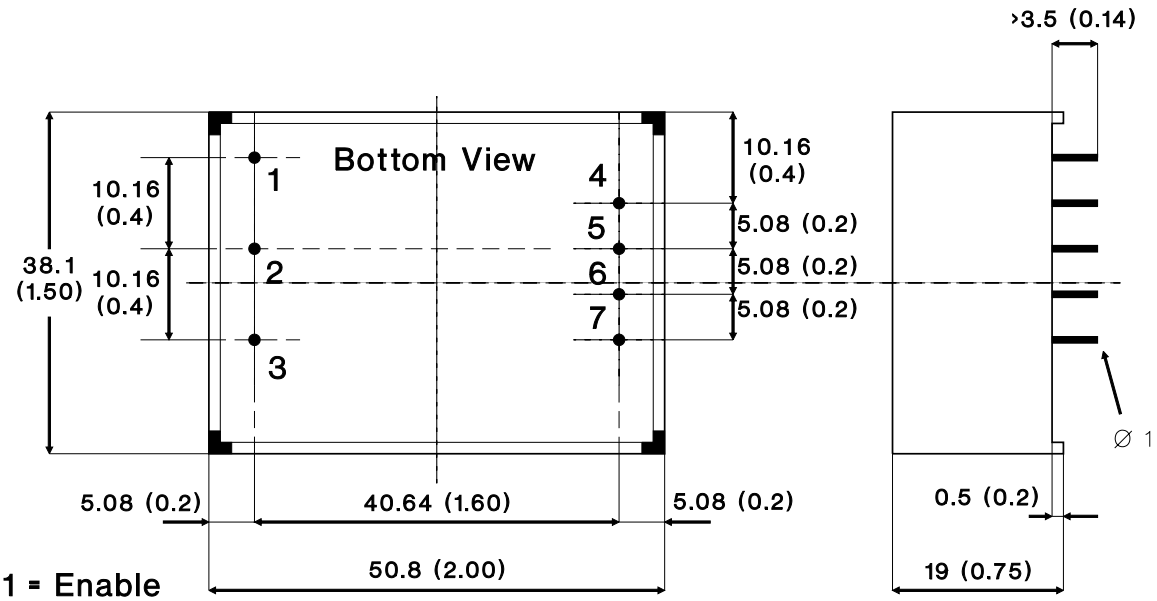
DESCRIPTION

The GS5T24-5D15 is a 5W DC-DC converter designed to provide three isolated outputs: 5V/200mA and a dual ±15V/±125mA.
The module operates from a 24V input source and offers 2500V_{DC} isolation voltage. A high level TTL/CMOS compatible input will enable the unit; a low input will inhibit it.

ELECTRICAL CHARACTERISTICS ($T_{amb.}$= 25° C unless otherwise specified)

Symbol	Parameter	Test Conditions		Min	Typ	Max	Unit
V_i	Input Voltage	V_{o1} = 5V V_{o2} = 15V V_{o3} = – 15V	I_{o1} = 0 to 200mA I_{o2} = 0 to 125mA I_{o3} = 0 to – 125mA	17.5	24.0	30.0	V
I_{ir}	Input Reflected Current	V_i = 17.5 to 30V	Full Load on All Outputs			75	mApp
V_{o1}	Output Voltage 1	V_i = 17.5 to 30V	I_{o1} = 0 to 200mA	4.75	5.00	5.25	V
V_{o2}	Output Voltage 2	V_i = 17.5 to 30V	I_{o2} = 0 to 125mA	14.25	15.00	15.75	V
V_{o3}	Output Voltage 3	V_i = 17.5 to 30V	I_{o3} = 0 to – 125mA	– 14.25	– 15.00	– 15.75	V
V_{or1}	Output Ripple Voltage 1	V_i = 24V	Full Load on All Outputs			30	mVpp
V_{or2}	Output Ripple Voltage 2	V_i = 24V	Full Load on All Outputs			90	mVpp
V_{or3}	Output Ripple Voltage 3	V_i = 24V	Full Load on All Outputs			90	mVpp
I_{o1}	Output Current 1	V_i = 17.5 to 30V V_{o1} = 5V		0		200	mA
I_{o2}	Output Current 2	V_i = 17.5 to 30V V_{o2} = 15V	I_{o3} = 0 to 125mA	0		125	mA
I_{o3}	Output Current 3	V_i = 17.5 to 30V V_{o3} = – 15V	I_{o2} = 0 to – 125mA	0		125	mA
V_{is}	Isolation Voltage			2500			V_{DC}
f_s	Switching Frequency				120		kHz
η	Efficiency	V_i = 24V	Full Load on All Outputs	65	70		%
T_{op}	Operating Ambient Temperature Range	Still air		0		+40	°C
T_{op}	Operating Ambient Temperature Range	Forced ventilation, air speed = 100 LFM		0		+60	°C
T_{stg}	Storage Temperature Range			– 20		+85	°C

CONNECTION DIAGRAM AND MECHANICAL DATA



1 = Enable
2 = Vin -
3 = Vin +
4 = Vout -15V
5 = Vout +15V
6 = Out Common Ground
7 = Vout +5V

Package E. Dimensions in mm (inches)

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1994 SGS-THOMSON Microelectronics – All Rights Reserved

SGS-THOMSON Microelectronics GROUP OF COMPANIES
Australia - Brazil - China - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.