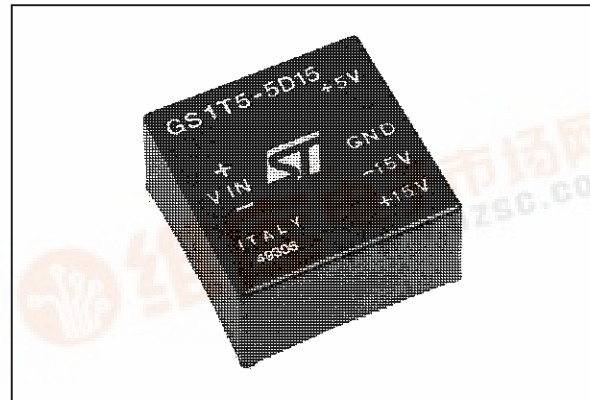




GS1T5-5D15

1 W TRIPLE OUTPUT DC-DC CONVERTER

Type	V_i	V_o	I_o
GS1T5-5D15	5 V	+ 5 V	+ 20 mA
		+ 15 V	+ 15 mA
		- 15 V	- 15 mA



DESCRIPTION

The GS1T5-5D15 is a 0.6W DC-DC converter designed to provide an isolated 5V/20mA, +15V/15mA and -15V/15mA power source.

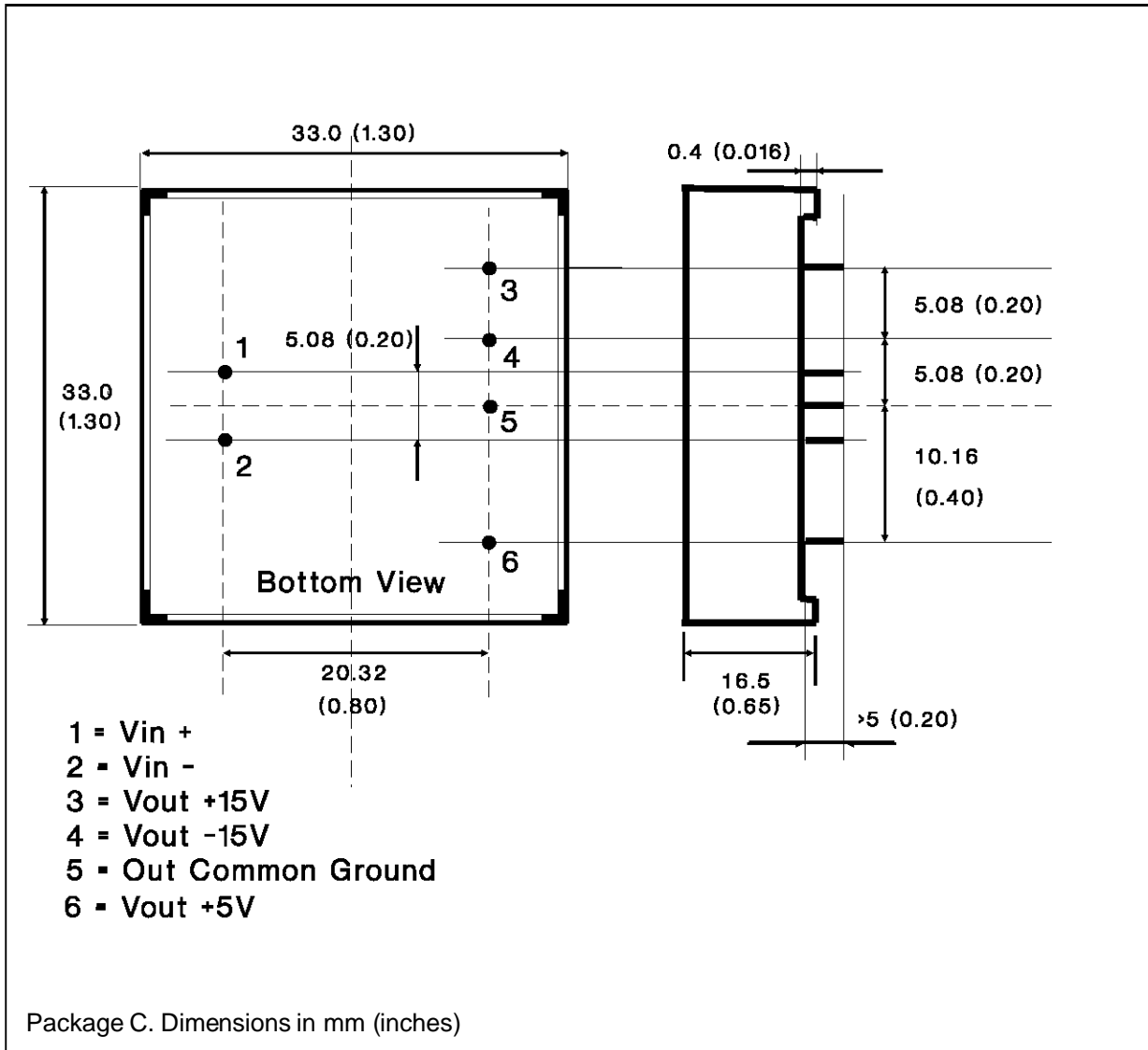
The module operates from a 5V input source and offers 2500VDC isolation.

ELECTRICAL CHARACTERISTICS ($T_{amb.} = 25^\circ \text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	$V_{o1} = +5V$ $V_{o2} = +15V$ $V_{o3} = -15V$ $I_{o1} = 3 \text{ to } 20\text{mA}$ $I_{o2} = 5 \text{ to } 15\text{mA}$ $I_{o3} = -5 \text{ to } -15\text{mA}$	4.7	5.0	5.3	V
I_{ir}	Input Reflected Current	$V_i = 4.7 \text{ to } 5.3V$ Full Load			10	mApp
V_{o1}	Output Voltage 1	$V_i = 4.7 \text{ to } 5.3V$ $I_{o1} = 3 \text{ to } 20\text{mA}$	4.75	5.00	5.25	V
V_{o2}	Output Voltage 2	$V_i = 4.7 \text{ to } 5.3V$ $I_{o2} = 5 \text{ to } 15\text{mA}$	14.25	15.00	15.75	V
V_{o3}	Output Voltage 3	$V_i = 4.7 \text{ to } 5.3V$ $I_{o3} = -5 \text{ to } -15\text{mA}$	-14.25	-15.00	-15.75	V
I_{o1}	Output Current 1	$V_i = 4.7 \text{ to } 5.3V$ $V_{o1} = 5V$	3		20	mA
I_{o2}	Output Current 2	$V_i = 4.7 \text{ to } 5.3V$ $V_{o2} = +15V$	5		15	mA
I_{o3}	Output Current 3	$V_i = 4.7 \text{ to } 5.3V$ $V_{o3} = -15V$	-5		-15	mA
V_{or1}	Output Ripple Voltage 1	$V_i = 4.7 \text{ to } 5.3V$ $I_{o1} = 20\text{mA}$			30	mVpp
V_{or2}	Output Ripple Voltage 2	$V_i = 4.7 \text{ to } 5.3V$ $I_{o2} = 15\text{mA}$			70	mVpp
V_{or3}	Output Ripple Voltage 3	$V_i = 4.7 \text{ to } 5.3V$ $I_{o3} = -15\text{mA}$			70	mVpp
V_{is}	Isolation voltage		2500			Vdc
η	Efficiency	$V_i = 5V$ Full Load	68	73		%
f_s	Switching Frequency	$V_i = 5V$ Full Load		150		kHz
T_{op}	Operating Ambient Temperature Range		0		+80	$^\circ\text{C}$
T_{stg}	Storage Temperature Range		-40		+85	$^\circ\text{C}$

GS1T5-5D15

CONNECTION DIAGRAM AND MECHANICAL DATA



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.