

5 W DC-DC CONVERTER

Type	V_i	V_o	I_o
GS5T48-15	38 to 60 V	15 V	330 mA

DESCRIPTION

The GS5T48-15 is a 5W DC-DC converter designed to provide a 15V/330mA isolated power source.

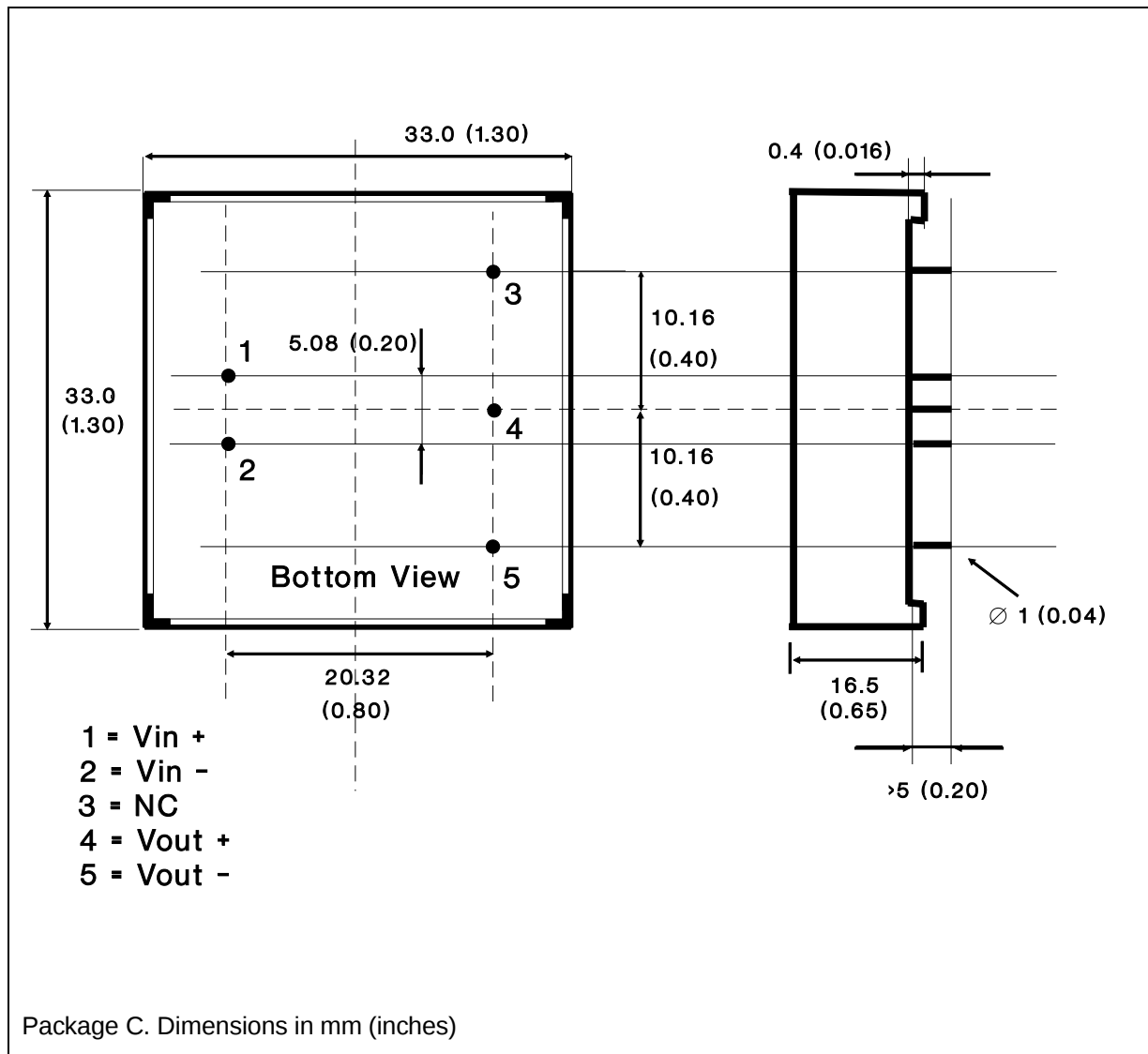
The module features a wide input voltage range (38 to 60V), low reflected input current and continuous short-circuit protection. It is certified by UL, CSA (level 3) and TUV as having SELV output when provided with a SELV input.



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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	$V_o = 15\text{V}$ $I_o = 50$ to 330mA	38	48	60	V
I_i	Input Current	$V_i = 38$ to 60V $I_o = 330\text{mA}$			500	mA
I_{ir}	Input Reflected Current	$V_i = 48\text{V}$ $V_o = 15\text{V}$ $I_o = 330\text{mA}$		25	40	mApp
V_o	Output Voltage	$V_i = 38$ to 60V $I_o = 50$ to 330mA	14.5	15	15.5	V
V_{or}	Output Ripple Voltage	$V_i = 48\text{V}$ $I_o = 330\text{mA}$ BW = 5Hz to 20MHz		50	100	mVpp
δV_{OL}	Line Regulation	$V_i = 38$ to 60V $I_o = 330\text{mA}$		1	2	mV/V
δV_{OO}	Load Regulation	$V_i = 48\text{V}$ $I_o = 50$ to 330mA		100	150	mV/A
I_o	Output Current	$V_i = 38$ to 60V $V_o = 15\text{V}$	50		330	mA
I_{osc}	Output Short-circuit Current	$V_i = 48\text{V}$			1.8	A
V_{is}	Isolation Voltage		500			V_{DC}
f_s	Switching Frequency	$V_i = 38$ to 60V $I_o = 50$ to 330mA	30		200	kHz
η	Efficiency	$V_i = 48\text{V}$ $I_o = 330\text{mA}$	80	82		%
T_{op}	Operating Ambient Temperature Range	Still air	0		+60	$^\circ\text{C}$
T_{op}	Operating Ambient Temperature Range	Forced ventilation, air speed = 100 LFM	0		+70	$^\circ\text{C}$
T_{stg}	Storage Temperature Range		-40		+85	$^\circ\text{C}$

CONNECTION DIAGRAM AND MECHANICAL DATA



SAFETY APPROVALS

The converter is agency certified to the following safety requirements:

Agency	Requirements	File Number
UL	UL-STD-1950	E141284
CSA	CSA-STD-C22.2 No. 234	LR 99794-3
TUV	EN 60950 DIN VDE 0805	R 9172410

® UL is a registered trademark of UNDERWRITERS LABORATORIES inc.

® CSA is a registered trademark of CANADIAN STANDARDS ASSOCIATION.

® TUV is a registered trademark of TUV Rheinland.

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

® UL is a registered trademark of UNDERWRITERS LABORATORIES inc.

® CSA is a registered trademark of CANADIAN STANDARDS ASSOCIATION.

® TUV is a registered trademark of TUV Rheinland.

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.