

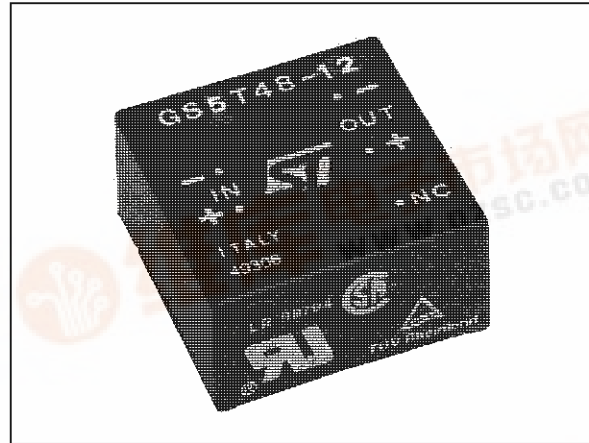
5 W DC-DC CONVERTER

Type	V _i	V _o	I _o
GS5T48-12	38 to 60 V	12 V	420 mA

DESCRIPTION

The GS5T48-12 is a 5W DC-DC converter designed to provide a 12V/420mA 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.

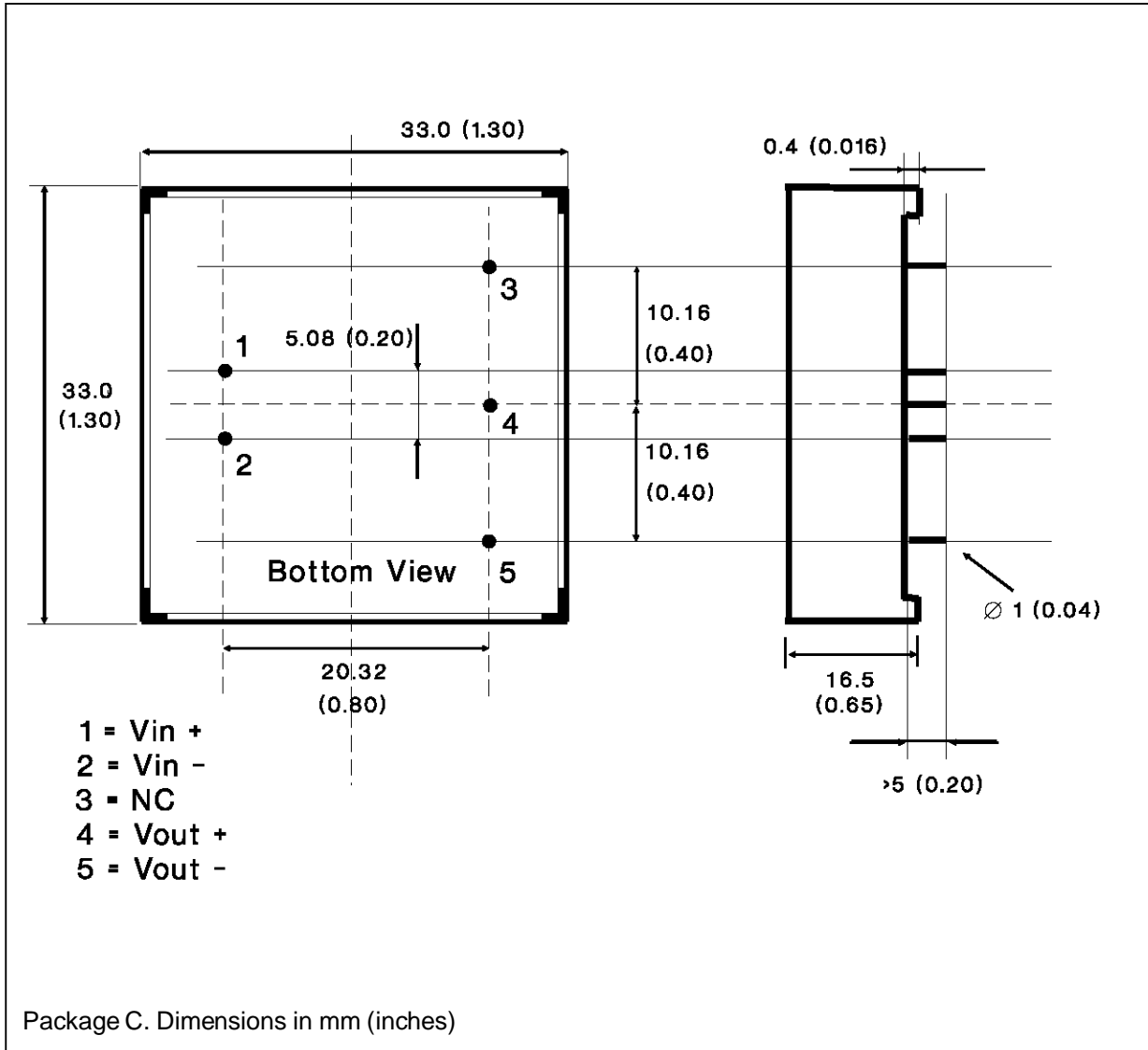


ELECTRICAL CHARACTERISTICS (T_{amb.} = 25° C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V _i	Input Voltage	V _o = 12V I _o = 50 to 420mA	38	48	60	V
I _i	Input Current	V _i = 38 to 60V I _o = 420mA			500	mA
I _{ir}	Input Reflected Current	V _i = 48V V _o = 12V I _o = 420mA		25	40	mApp
V _o	Output Voltage	V _i = 38 to 60V I _o = 50 to 420mA	11.5	12	12.5	V
V _{or}	Output Ripple Voltage	V _i = 48V I _o = 420mA BW = 5Hz to 20MHz		50	100	mVpp
δVOL	Line Regulation	V _i = 38 to 60V I _o = 420mA		1	2	mV/V
δVOO	Load Regulation	V _i = 48V I _o = 50 to 420mA		100	150	mV/A
I _o	Output Current	V _i = 38 to 60V V _o = 12V	50		420	mA
I _{osc}	Output Short-circuit Current	V _i = 48V			1.8	A
V _{is}	Isolation Voltage		500			VDC
f _s	Switching Frequency	V _i = 38 to 60V I _o = 50 to 420mA	30		200	kHz
η	Efficiency	V _i = 48V I _o = 420mA	78	80		%
T _{op}	Operating Ambient Temperature Range	Still air	0		+60	°C
T _{op}	Operating Ambient Temperature Range	Forced ventilation, air speed = 100 LFM	0		+70	°C
T _{stg}	Storage Temperature Range		-40		+85	°C

GS5T48-12

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.