

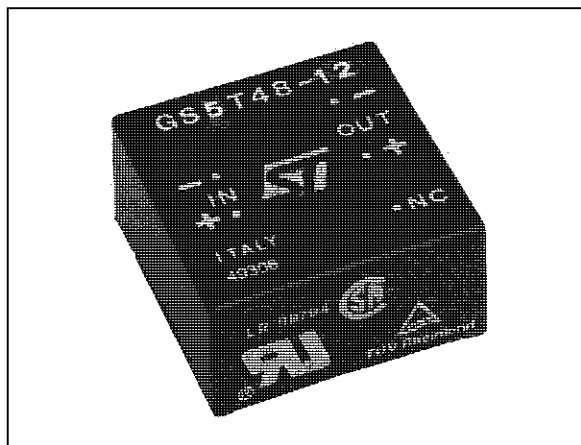
## 5 W DC-DC CONVERTER

Type	V <sub>i</sub>	V <sub>o</sub>	I <sub>o</sub>
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.

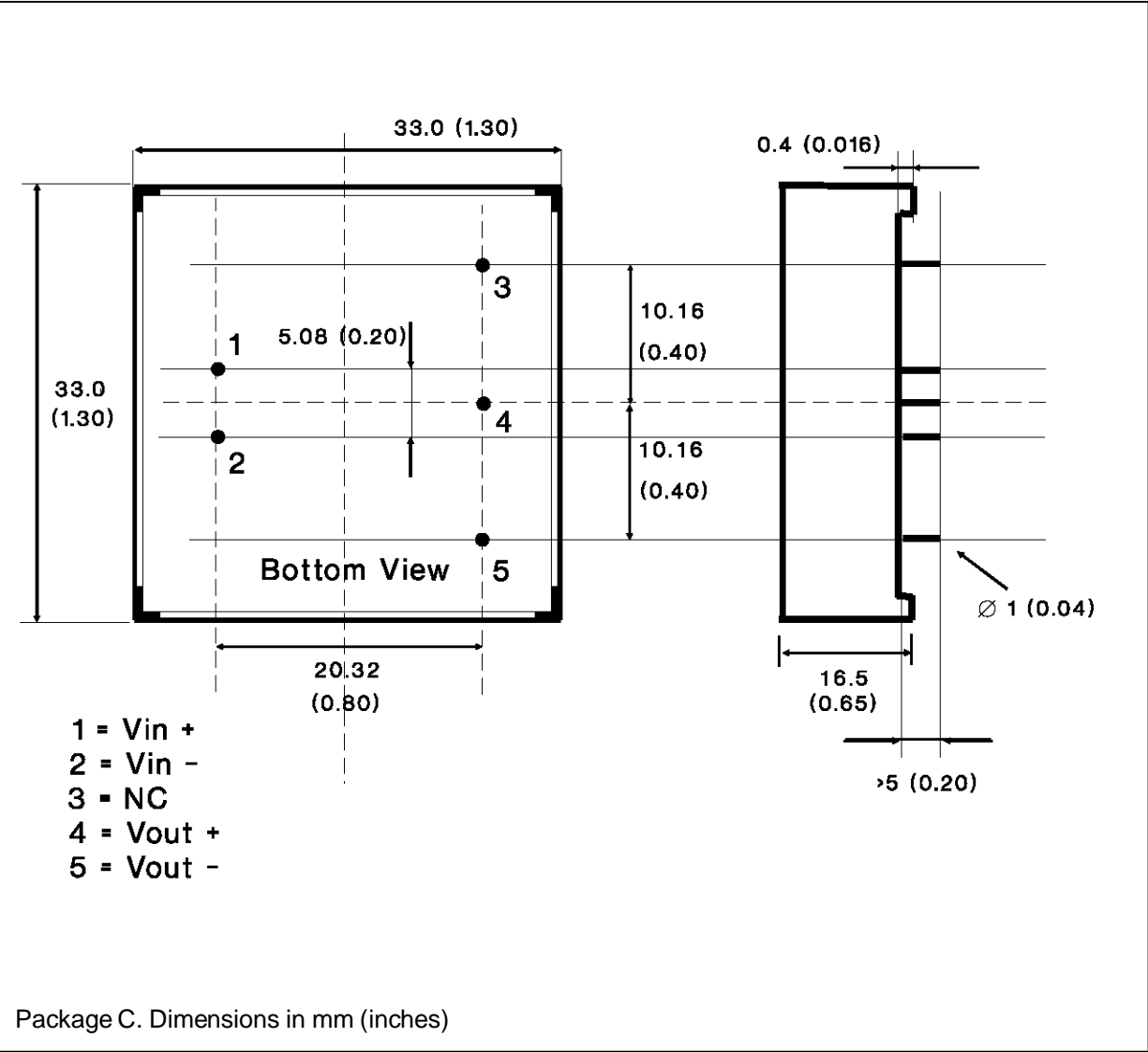
The module features a wide input voltage range (38 to 60V), low reflected input current and continuous short-circuit protection. It is certified by UL, CSA (level 3) and TUV as having SELV output when provided with a SELV input.



### ELECTRICAL CHARACTERISTICS (T<sub>amb.</sub> = 25° C unless otherwise specified)

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

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