

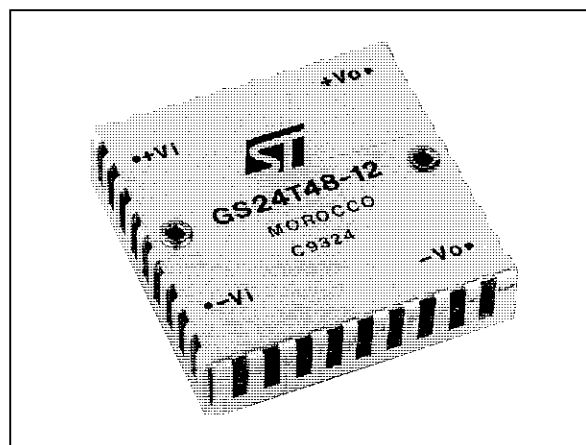
## 24 W DC-DC CONVERTER

Type	V <sub>in</sub>	V <sub>out</sub>	I <sub>out</sub>
GS24T48-12	36 to 72 V	12 V	2 A

### DESCRIPTION

The GS24T48-12 is a 24W DC-DC converter designed to provide a 12V/2A isolated power source.

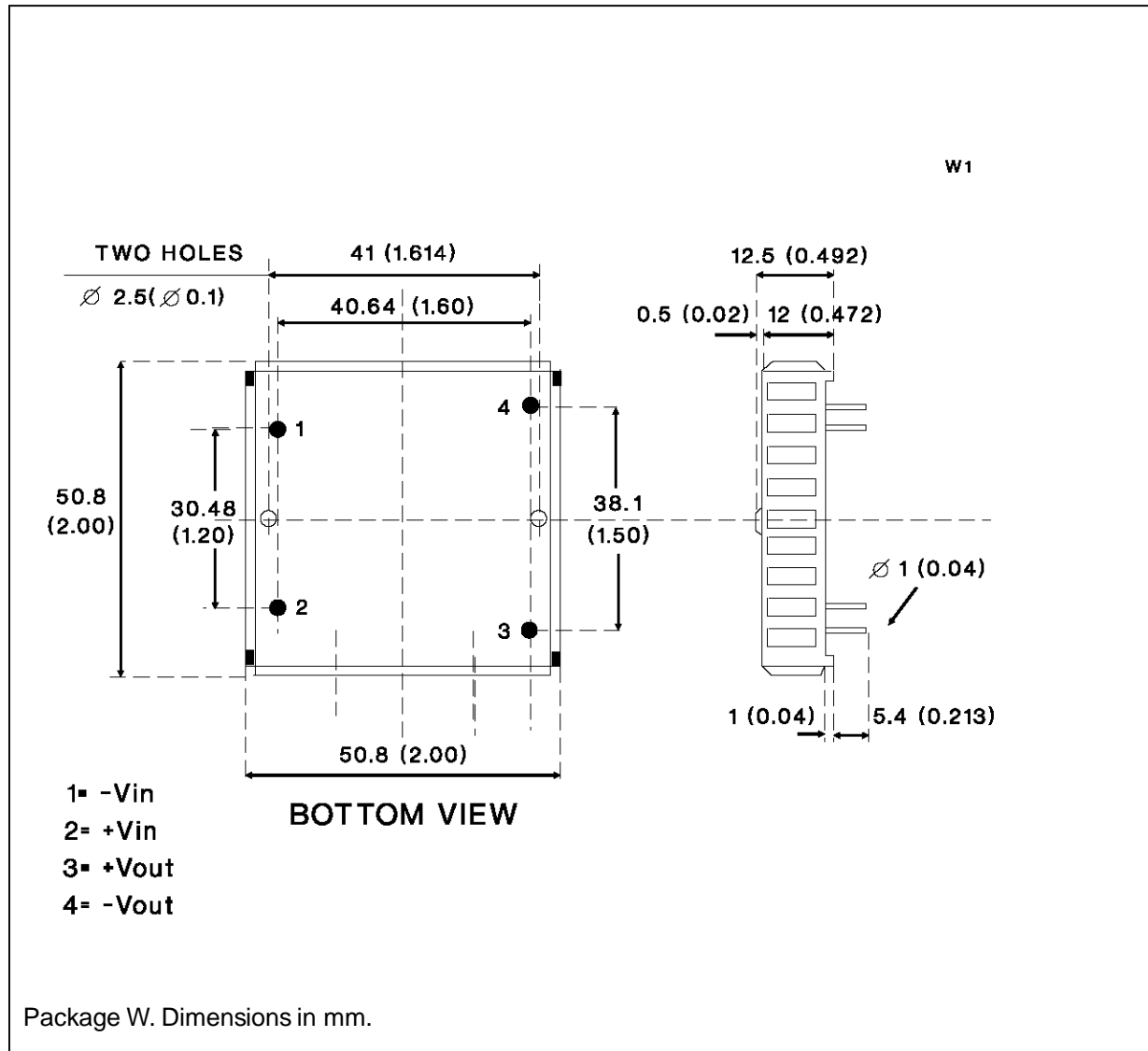
The module features a wide input voltage range (36 to 72V), low reflected input current and short-circuit protection.



### 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> = 0.1 to 2A	36	48	72	V
I <sub>i</sub>	Input Current	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V    I <sub>o</sub> = 2A		0.58	0.60	A
I <sub>ir</sub>	Input Reflected Current	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V    I <sub>o</sub> = 2A		90	120	mApp
I <sub>iinr</sub>	Input Inrush Current	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V    I <sub>o</sub> = 2A		18	22	Ap
I <sub>isc</sub>	Input Shortcircuit Current	V <sub>i</sub> = 48V    V <sub>o</sub> = 0V		100	150	mA
V <sub>o</sub>	Output Voltage	V <sub>i</sub> = 36 to 72V    I <sub>o</sub> = 0.1 to 2A	11.4	12	12.6	V
V <sub>or</sub>	Output Ripple Voltage	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V    I <sub>o</sub> = 2A		30	60	mVpp
V <sub>on</sub>	Output Noise Voltage	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V I <sub>o</sub> = 2A    BW = 100MHz			500	mVpp
δV <sub>o</sub>	Line Regulation	V <sub>i</sub> = 36 to 72V    I <sub>o</sub> = 2A		20	30	mV
δV <sub>o</sub>	Load Regulation	V <sub>i</sub> = 48V    I <sub>o</sub> = 0.1 to 2A		20	30	mV
I <sub>o</sub>	Output Current	V <sub>i</sub> = 36 to 72V    V <sub>o</sub> = 12V	0.1		2	A
I <sub>osc</sub>	Output Short-circuit Current	V <sub>i</sub> = 48V V <sub>o</sub> = 0V		1.0	1.5	A
V <sub>is</sub>	Isolation Voltage		500			Vdc
f <sub>s</sub>	Switching Frequency	V <sub>i</sub> = 36 to 72V    I <sub>o</sub> = 0.1 to 2A		450		kHz
η	Efficiency	V <sub>i</sub> = 48V    V <sub>o</sub> = 12V    I <sub>o</sub> = 2A	84	86		%
R <sub>th</sub>	Thermal Resistance	Case-to-Ambient		13		°C/W
T <sub>cop</sub>	Operating Case Temperature Range		0		+85	°C
T <sub>stg</sub>	Storage Temperature Range		-20		+105	°C

CONNECTION DIAGRAM AND MECHANICAL DATA



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