

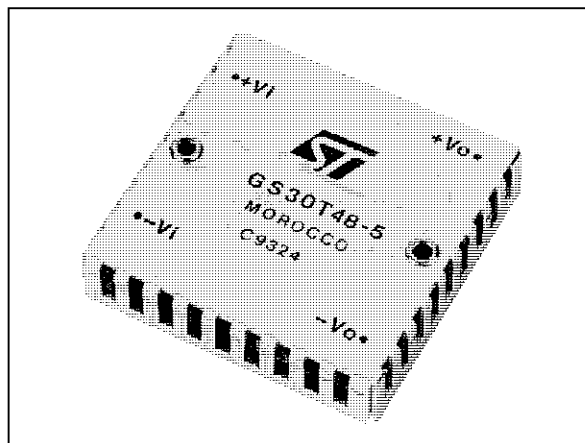
30 W DC-DC CONVERTER

| Type | V _{in} | V _{out} | I _{out} |
|-----------|-----------------|------------------|------------------|
| GS30T48-5 | 36 to 72 V | 5 V | 6 A |

DESCRIPTION

The GS30T48-5 is a 30W DC-DC converter designed to provide a 5V/6A isolated power source.

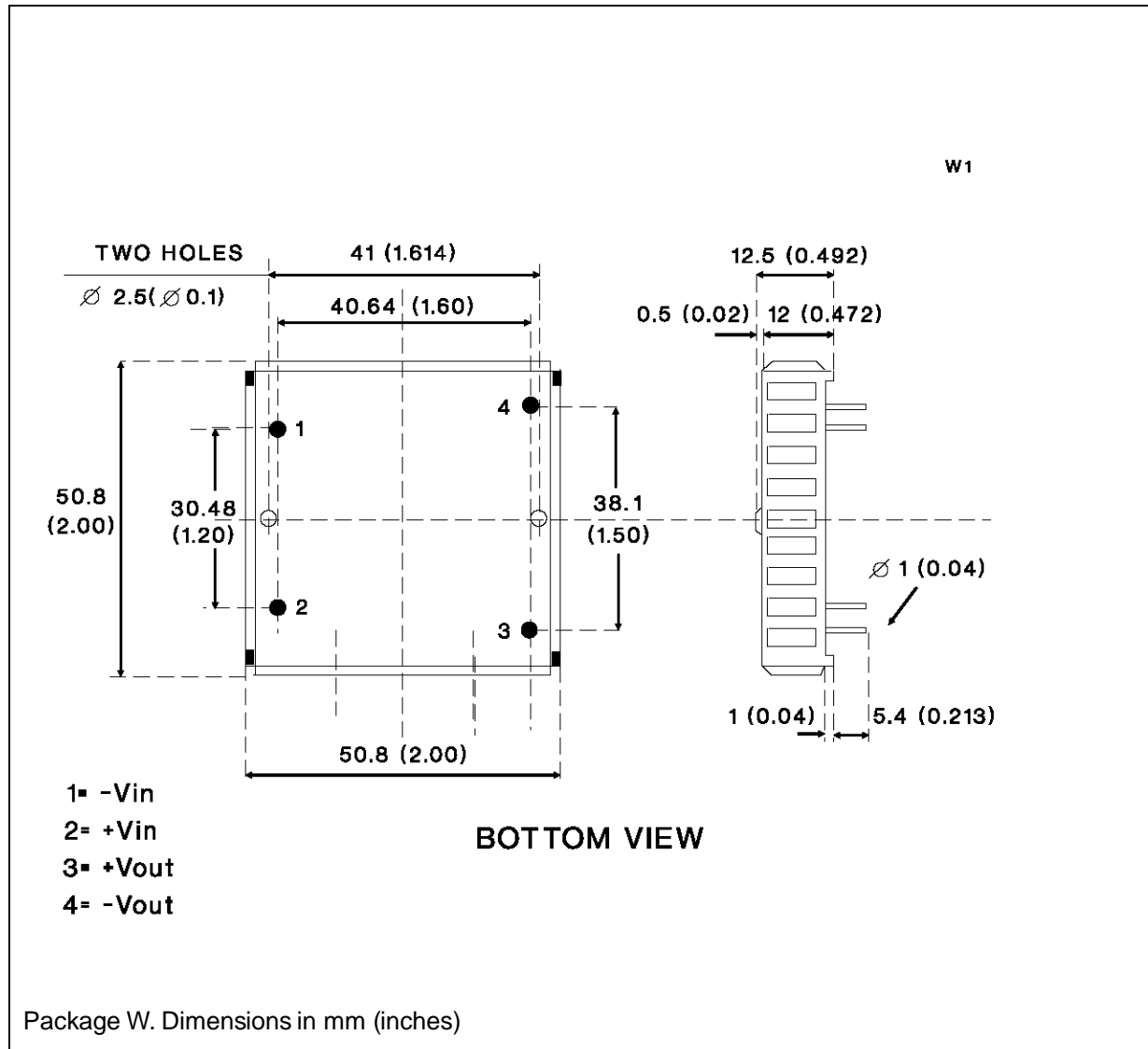
The module features a wide input voltage range (36 to 72V), low reflected input current and short-circuit protection.



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

| Symbol | Parameter | Test Conditions | Min | Typ | Max | Unit |
|------------------|----------------------------------|--|------|------|------|------|
| V _i | Input Voltage | V _O = 5V I _O = 0.05 to 6A | 36 | 48 | 72 | V |
| I _i | Input Current | V _i = 48V V _O = 5V I _O = 6A | | 0.79 | 0.82 | A |
| I _{ir} | Input Reflected Current | V _i = 48V V _O = 5V I _O = 6A | | 250 | 300 | mApp |
| I _{inr} | Input Inrush Current | V _i = 48V V _O = 5V I _O = 6A | | 18 | 22 | Ap |
| I _{isc} | Input Shortcircuit Current | V _i = 48V V _O = 0V | | 45 | 70 | mA |
| V _O | Output Voltage | V _i = 36 to 72V I _O = 0.05 to 6A | 4.75 | 5.00 | 5.25 | V |
| V _{or} | Output Ripple Voltage | V _i = 48V V _O = 5V I _O = 6A | | 150 | 200 | mVpp |
| δV _O | Line Regulation | V _i = 36 to 72V I _O = 6A | | 2 | 10 | mV |
| δV _O | Load Regulation | V _i = 48V I _O = 0.05 to 6A | | 2 | 10 | mV |
| I _O | Output Current | V _i = 36 to 72V V _O = 5V | 0.05 | | 6 | A |
| I _{osc} | Output Short-circuit Current | V _i = 48V V _O = 0V | | 0.85 | 1.1 | A |
| V _{is} | Isolation Voltage | | 500 | | | Vdc |
| f _s | Switching Frequency | V _i = 36 to 72V I _O = 0.05 to 6A | | 450 | | kHz |
| η | Efficiency | V _i = 48V V _O = 5V I _O = 6A | 77 | 80 | | % |
| R _{th} | Thermal Resistance | Case-to-Ambient | | 13 | | °C/W |
| T _{cop} | Operating Case Temperature Range | | 0 | | +85 | °C |
| T _{stg} | Storage Temperature Range | | -20 | | +105 | °C |

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 - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.