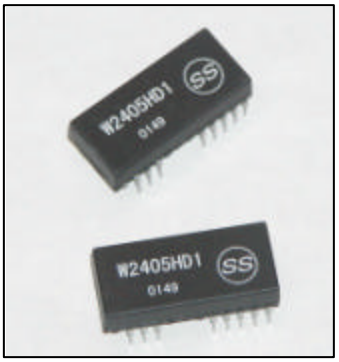
**TECHNICAL DATA**
**DATA SHEET 1119, REV. -**

# DC-DC Converters

## Wide Input (2:1), 1000V Isolation, Regulated

### FEATURES:

- **Isolation Voltage:** **1000Vdc**
- **Isolation Resistance (1):** **1000MW**
- **Short-Circuit Duration:** **Continuous**
- **Case Temperature Rise:** **Max. 25°C, Typ. 15°C**
- **Cooling Method:** **Free-Air Cooling**
- **Operating Temp.:** **-40°C ~ + 85°C**
- **Storage Temp.:** **-50°C ~ + 125°C**
- **Humidity:** **£ 95%**
- **Soldering Temp. (2):** **300°C**
- **Case Material:** **Non-Flammable Material (UL94-V0)**
- **Mean Time Before Failure:** **> 1,500,000 hours (Operating Temp. 25°C)**




**W-1W Single-Dual Output Series Input Characteristics**

| Part Number | Nominal Input Voltage | Input Voltage Range | Maximum Input Voltage* |
|---|---|---|---|
| W24XXH/GD1 | 24Vdc | 18~36Vdc | 40Vdc |
| W48XXH/GD1 | 48Vdc | 36~72Vdc | 80Vdc |

* Voltage above this value may cause permanent damage to the device.

**W-1W Single-Dual Output Series Output Characteristics**

| Parameter | MIN | TYP | MAX | Units |
|---|---|---|---|---|
| Output Power | - | - | 1 | W |
| Output Voltage Accuracy | - | ± 1 | ± 3 | % |
| Efficiency at 25% Load | 60 | 65 | 70 | % |
| Efficiency at 100% Load | 65 | 75 | 83 | % |
| Voltage Regulation | - | 0.1 | 0.2 | % |
| Load Regulation | - | 0.2 | 0.5 | % |
| Temperature Coefficient | - | - | 0.02 | %/°C |
| Ripple | - | 10 | 20 | mVp-p |
| Noise | - | 50 | 100 | mVp-p |
| Switching Frequency at 100% Load | 80 | - | 200 | kHz |
| Switching Frequency at 25% Load | 250 | - | 550 | kHz |

1. All specifications at TA=25°C, 75% of the humidity, Nominal input voltage, full output load unless otherwise specified.
2. Soldering for 10 seconds at 1.5mm away from the edge.

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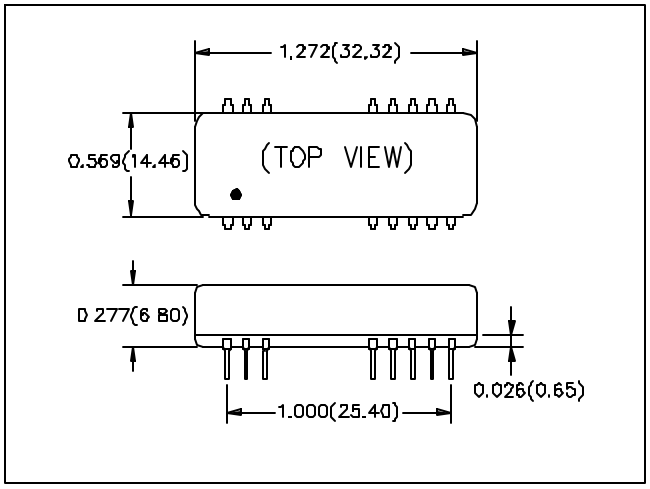
### W-1W Single-Dual Output Series Part Number List

| Input | Output | Power | Single-1W | Dual-1W |
|---|---|---|---|---|
| 24Vdc | 5V/200mA | 1W | W2405HD1 | W2405GD1 |
| | 9V/111mA | | W2409HD1 | W2409GD1 |
| | 12V/83mA | | W2412HD1 | W2412GD1 |
| | 15V/67mA | | W2415HD1 | W2415GD1 |
| 48Vdc | ± 5V/100mA | | W4805HD1 | W4805GD1 |
| | ± 9V/55mA | | W4809HD1 | W4809GD1 |
| | ± 12V/41mA | | W4812HD1 | W4812GD1 |
| | ± 15V/33mA | | W4815HD1 | W4815GD1 |

## Mechanical Dimensions: in mm

### WxxyyH/GD1 PACKAGE DIMENTIONS




All dimensions: mm

Precision: Case ± 0.5 (± 0.02in)
Precision: Pin ± 0.25 (± 0.01in)

### PIN CONFIGURATION

| Pin | Function | |
|---|---|---|
| | WxxyyHD1 | WxxyyGD1 |
| Other | NC | NC |
| 2,3 | GND | GND |
| 22, 23 | Vin | Vin |
| 14 | +Vo | +Vo |
| 16 | 0V | 0V |
| 11 | - | -Vo |
| 9 | - | 0V |