

TECHNICAL DATA  
DATA SHEET 1114, REV. -

## DC-DC Converters

### Fixed Input, 6000V Isolation, Unregulated, Single/Dual Output

**FEATURES:**

- Isolation Voltage: 6000Vdc
- Isolation Resistance (1): 1000MW
- Short-Circuit Duration: 1 second
- Case Temperature Rise: Max. 25° C, Typ. 15° C
- Cooling Method: Free-Air Cooling
- Standby Power Dissipation: 1W (100mW), 2W (200mW)
- Operating Temp.: -40° C ~ +85° C
- Storage Temp.: -55° C ~ +125° C
- Humidity:  $\leq$  95%
- Soldering Temp. (2): 300° C
- Case Material: Non-Flammable Material (UL94-V0)
- Mean Time Before Failure: > 1,000,000 hours (Operating Temp. 25° C)

**A Single/Dual Output-1W/2W Series Input Characteristics**

| Part Number   | Nominal Input Voltage | Input Voltage Range | Maximum Input Voltage* |
|---------------|-----------------------|---------------------|------------------------|
| A05XXH/GD1/2U | 5Vdc                  | 4.5~5.5Vdc          | 7Vdc                   |
| A12XXH/GD1/2U | 12Vdc                 | 10.8~13.2Vdc        | 15Vdc                  |
| A24XXH/GD1/2U | 24Vdc                 | 21.6~26.4Vdc        | 28Vdc                  |
| A48XXH/GD1/2U | 48Vdc                 | 43.2~52.8Vdc        | 54Vdc                  |

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

**A Single/Dual Output-1W/2W Series Output Characteristics**

| Parameter               | MIN  | TYP | MAX       | Units |
|-------------------------|------|-----|-----------|-------|
| 1W Output Power         | 0.25 |     | 1         | W     |
| 2W Output Power         | 0.5  |     | 2         | W     |
| Line Regulation         |      |     | $\pm$ 1.2 | %     |
| Efficiency at 100% Load | 65   | 75  | 85        | %     |
| Temperature Coefficient |      |     | 0.03      | %/°C  |
| 1W Ripple and Noise     |      | 75  | 150       | mVp-p |
| 2W Ripple and Noise     |      | 100 | 200       |       |
| Switching Frequency     | 80   | 100 | 200       | kHz   |

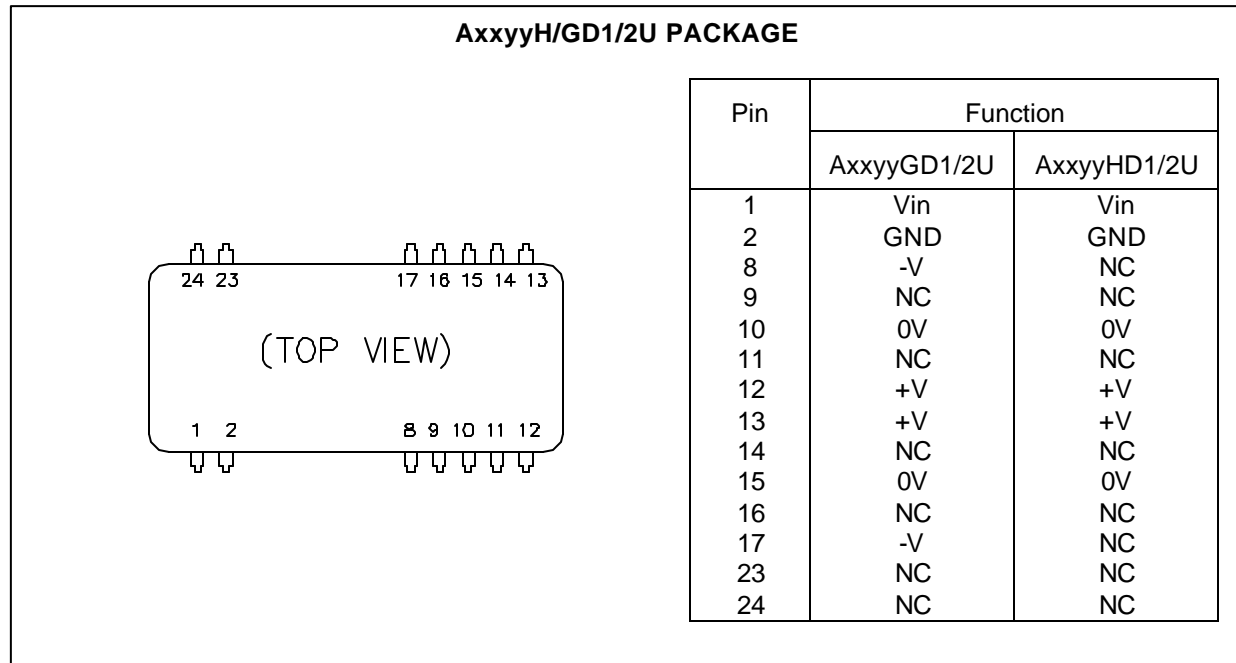
1. All specifications at TA=25°C, 75% of the humidity, Nominal input voltage, full output load unless otherwise specified.
2. Soldering for 10 seconds at 1.5mm away from the edge.

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**A Single/Dual Output-1W/2W Series Part Number List**

| Input | Output    | Power | Single-1W | Single-2W | Dual-1W   | Dual-2W   |
|-------|-----------|-------|-----------|-----------|-----------|-----------|
| 5Vdc  | 5V/200mA  | 1.00W | A0505HD1U | A0505HD2U | A0505GD1U | A0505GD2U |
|       | 9V/112mA  |       | A0509HD1U | A0509HD2U | A0509GD1U | A0509GD2U |
|       | 12V/84mA  |       | A0512HD1U | A0512HD2U | A0512GD1U | A0512GD2U |
|       | 15V/67mA  |       | A0515HD1U | A0515HD2U | A0515GD1U | A0515GD2U |
| 12Vdc | 5V/400mA  | 1.00W | A1205HD1U | A1205HD2U | A1205GD1U | A1205GD2U |
|       | 9V/224mA  | 1.00W | A1209HD1U | A1209HD2U | A1209GD1U | A1209GD2U |
|       | 12V/168mA | 1.00W | A1212HD1U | A1212HD2U | A1212GD1U | A1212GD2U |
|       | 15V/134mA | 1.00W | A1215HD1U | A1215HD2U | A1215GD1U | A1215GD2U |
| 24Vdc | ±5V/100mA | 2.00W | A2405HD1U | A2405HD2U | A2405GD1U | A2405GD2U |
|       | ±9V/56mA  | 2.00W | A2409HD1U | A2409HD2U | A2409GD1U | A2409GD2U |
|       | ±12V/42mA | 2.00W | A2412HD1U | A2412HD2U | A2412GD1U | A2412GD2U |
|       | ±15V/33mA | 2.00W | A2415HD1U | A2415HD2U | A2415GD1U | A2415GD2U |
| 48Vdc | ±5V/200mA | 2.00W | A4805HD1U | A4805HD2U | A4805GD1U | A4805GD2U |
|       | ±9V/112mA |       | A4809HD1U | A4809HD2U | A4809GD1U | A4809GD2U |
|       | ±12V/84mA |       | A4812HD1U | A4812HD2U | A4812GD1U | A4812GD2U |
|       | ±15V/67mA |       | A4815HD1U | A4815HD2U | A4815GD1U | A4815GD2U |

**PIN CONFIGURATION**



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Mechanical Dimension: inches/mm AxyyH/GD1/2U

