

## DC/DC Converter – V4-S/D, V4-S/DH

1 WATT

Single Output

### FEATURES

- 1000 Vdc Isolation
- Up to 3000 Vdc Isolation
- 7 Pin SIL // 14 Pin DIL Package
- Low Ripple and Noise
- Regulated
- Non-conductive Black Plastic Case
- MTBF > 2 MHours

| Model Number | Input Vdc | Output Vdc | Output Current (mA) | Efficiency @FL (%) |
|--------------|-----------|------------|---------------------|--------------------|
| V4-0505S/D   | 5         | 5          | 200                 | 65/65              |
| V4-057R2S/D  |           | 7.2        | 139                 | 65/65              |
| V4-0509S/D   |           | 9          | 111                 | 68/68              |
| V4-0512S/D   |           | 12         | 84                  | 68/68              |
| V4-0515S/D   |           | 15         | 67                  | 68/68              |
| V4-1205S/D   | 12        | 5          | 200                 | 66/66              |
| V4-127R2S/D  |           | 7.2        | 139                 | 66/66              |
| V4-1209S/D   |           | 9          | 111                 | 68/68              |
| V4-1212S/D   |           | 12         | 84                  | 68/68              |
| V4-1215S/D   |           | 15         | 67                  | 70/70              |
| V4-2405S/D   | 24        | 5          | 200                 | 66/66              |
| V4-247R2S/D  |           | 7.2        | 139                 | 66/66              |
| V4-2409S/D   |           | 9          | 111                 | 68/68              |
| V4-2412S/D   |           | 12         | 84                  | 68/68              |
| V4-2415S/D   |           | 15         | 67                  | 70/70              |
| V4-0505S/DH  | 5         | 5          | 200                 | 65/65              |
| V4-057R2S/DH |           | 7.2        | 139                 | 65/65              |
| V4-0509S/DH  |           | 9          | 111                 | 68/68              |
| V4-0512S/DH  |           | 12         | 84                  | 68/68              |
| V4-0515S/DH  |           | 15         | 67                  | 68/68              |
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| V4-1212S/DH  |           | 12         | 84                  | 68/68              |
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| V4-2415S/DH  |           | 15         | 67                  | 70/70              |

1. Suffix "H" means 3 KV Isolation.

2. Input Voltage is from 5 V to 48 V and Output Voltage is from 3.3 V to 24 V

#### Input Specifications:

Voltage Range ±10%  
Filter Capacitors

#### Isolation Specification:

Rated Voltage 1000 Vdc, Standard  
Up to 3000 Vdc.  
Resistance 1000M Ω Min.  
Capacitance 60 pF, Typ.

#### Output Specifications:

Voltage Accuracy: ±2%, Max.  
Voltage Balance (Dual Outputs) ±1%  
Ripple and Noise (at 20 MHz BW) 50mVp-p, Max  
Short Circuit Protection Momentary  
Line Voltage Regulation ±0.5%, Max.  
Load Voltage Regulation ±0.5%, Max.  
Temperature Coefficient ±0.02% / °C

#### General Specifications:

Efficiency 65% ~ 70%  
Switching Frequency 60 KHz, Typ.

#### Environmental Specification:

Operating Temperature (Ambient) -25°C ~ +71°C  
Case Temperature 100°C Max.  
Storage Temperature -40°C ~ +125°C  
Derating None Required  
Humidity Up to 90%, Non-condensing  
Cooling Free-air Convection

#### Capacitive Load:

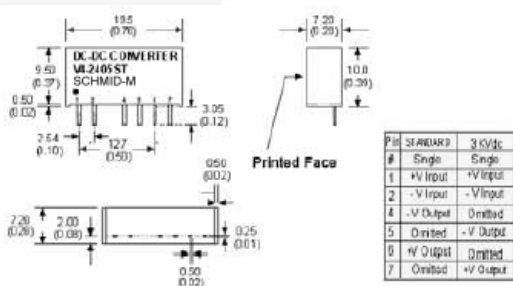
220µF, Max.

#### Note:

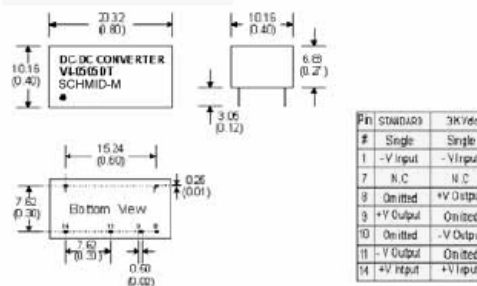
For Vin 48V series, pls. add a capacitor in the input point. Cx = 4.7µF/100V ~ 47µF/100V.

### MECHANICAL DIMENSIONS & PIN CONNECTIONS

#### 7 SIL package



#### 14 DIL package



Notes: 1. All dimensions are typical in millimeters (inches). Tolerance x.xx = ± 0.25 (± 0.01)

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| Model Number  | Input Vdc | Output Vdc | Output Current (mA) | Efficiency @FL (%) |
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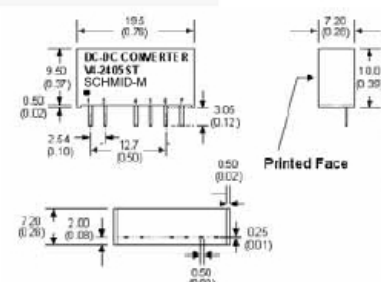
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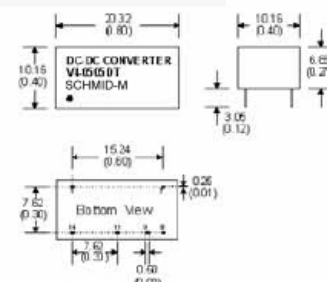
### MECHANICAL DIMENSIONS & PIN CONNECTIONS

#### 7 SIL package



| Pin | STANDARD  | 3kVdc     |
|-----|-----------|-----------|
| #   | Single    | Single    |
| 1   | +V Input  | +V Input  |
| 2   | -V Input  | -V Input  |
| 4   | -V Output | Omitted   |
| 5   | Omitted   | -V Output |
| 6   | +V Output | Omitted   |
| 7   | Omitted   | +V Output |

#### 14 DIL package



| Pin | STANDARD  | 3kVdc     |
|-----|-----------|-----------|
| #   | Single    | Single    |
| 1   | -V Input  | -V Input  |
| 7   | N.C       | N.C       |
| 9   | Omitted   | +V Output |
| 9   | +V Output | Omitted   |
| 10  | Omitted   | -V Output |
| 11  | -V Output | Omitted   |
| 14  | +V Input  | +V Input  |

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