

## DC/DC Converter – VE-S(H)

2 WATT

Single Output

### FEATURES

- 1000 Vdc Isolation
- Up to 3000 Vdc Isolation
- 4 Pin SIL Package
- Low Ripple and Noise
- Unregulated
- Non-conductive Black Plastic Case
- MTBF > 2 MHours

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
VE-0505S	5	5	400	77
VE-0509S		9	222	82
VE-0512S		12	167	84
VE-0515S		15	133	84
VE-0524S		24	83	84
VE-1205S	12	5	400	80
VE-1209S		9	222	85
VE-1212S		12	167	85
VE-1215S		15	133	85
VE-1224S		24	83	83
VE-2405S	24	5	400	80
VE-2409S		9	222	86
VE-2412S		12	167	86
VE-2415S		15	133	86
VE-2424S		24	83	88
VE-0505SH	5	5	400	77
VE-0509SH		9	222	82
VE-0512SH		12	167	84
VE-0515SH		15	133	84
VE-0524SH		24	83	84
VE-1205SH	12	5	400	80
VE-1209SH		9	222	85
VE-1212SH		12	167	85
VE-1215SH		15	133	85
VE-1224SH		24	83	83
VE-2405SH	24	5	400	80
VE-2409SH		9	222	86
VE-2412SH		12	167	86
VE-2415SH		15	133	86
VE-2424SH		24	83	88

1. Suffix "H" means 3000 Vdc Isolation.

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

#### Input Specifications:

Voltage Range  $\pm 10\%$   
Filter Capacitors

#### Isolation Specification:

Rated Voltage 1000 Vdc, Standard  
3000 Vdc, Suffix "H"  
Resistance 1000M  $\Omega$  Min.  
Capacitance 60 pF, Typ.

#### Output Specifications:

Voltage Accuracy:  $\pm 3\%$ , Max.  
Ripple and Noise (at 20 MHz BW) 120mVp-p, Max  
Short Circuit Protection Momentary  
Line Voltage Regulation  $\pm 1.2\%$  / 1.0% of Vin  
Load Voltage Regulation  $\pm 8\%$ , load=20~100%  
Temperature Coefficient  $\pm 0.02\%$  /  $^{\circ}\text{C}$

#### General Specifications:

Efficiency 77% ~ 88%  
Switching Frequency 125 KHz, Typ.

#### Environmental Specification:

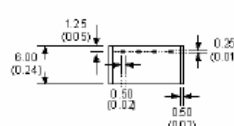
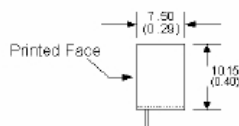
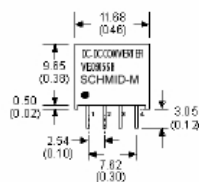
Operating Temperature (Ambient)  $-40^{\circ}\text{C}$  ~  $+85^{\circ}\text{C}$   
Case Temperature  $95^{\circ}\text{C}$  Max.  
Storage Temperature  $-40^{\circ}\text{C}$  ~  $+125^{\circ}\text{C}$   
Derating None Required  
Humidity Up to 90%, Non-condensing  
Cooling Free-air Convection

**Capacitive Load (Vout):** 470 $\mu\text{F}$ , Max.

**Note:** For Vin 48V series, pls. add a capacitor in the input point.  $C_x = 4.7\mu\text{F}/100\text{V} \sim 47\mu\text{F}/100\text{V}$ .

### MECHANICAL DIMENSIONS & PIN CONNECTIONS

#### 4 SIL package



Pin #	STANDARD
1	-V Input
2	+V Input
3	-V Output
4	+V Output

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