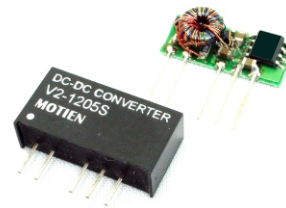


# V2-1W Series

## 1W Regulated Dual Split output

### Features

- 7 Pin SIL
- 1000 VDC Isolation
- Up to 3000 VDC Isolation
- Low Ripple and Noise
- Efficiency up to 70%
- -25 ~ 85°C Operation Temperature Range
- Non-Conductive Black Plastic Case



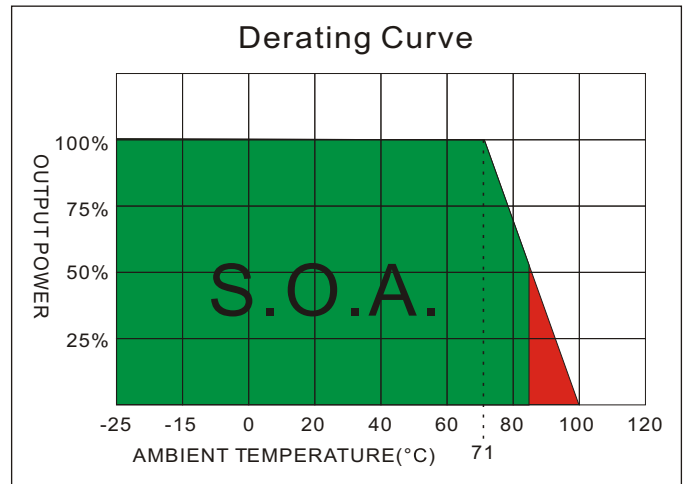
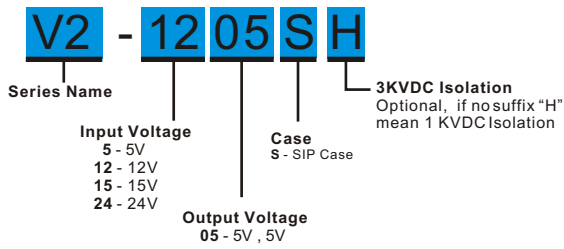
The V2 series is a family of cost effective 1W dual split output DC-DC converters. These converters achieve low cost and ultra-miniature SIP 7 pin size. Devices are encapsulated using flame retardant resin. The models operate from input voltage of 5, 12, 15, 24 Vdc with output voltage of +5,+5 Vdc. High performance features include 1000Vdc~3000Vdc input/output isolation, high efficiency operation and output voltage accuracy of  $\pm 2\%$  maximum. Standard features include an input range of  $\pm 10\%$  tolerance and low output noise and ripple.

All specifications typical at  $T_a=25^\circ\text{C}$ , nominal input voltage and full load unless otherwise specified

OUTPUT SPECIFICATIONS		PHYSICAL SPECIFICATIONS	
Voltage accuracy	$\pm 2\%$	Case Material	Non-conductive Black Plastic(UL94V-0 rated)
Line regulation	$\pm 0.4\%$	Pin Material	0.5mm Alloy42 Solder-coated
Load regulation	(From 0% to 100% Load) $\pm 0.3\%$	Potting Material	Epoxy (UL94V-0 rated)
Ripple & noise(20 MHz bandwidth)(1)	50mV pk-pk	Weight	2.5g
Temperature coefficient	$\pm 0.02\%/^\circ\text{C}$	Dimensions	SIP Case 0.76"x0.24"x0.39"
Capacitor load(2)	See table		
INPUT SPECIFICATIONS		ENVIRONMENT SPECIFICATIONS	
Voltage Range	$\pm 10\%$	Operating Temperature	-25°C~85°C(See Derating Curve) -25°C~71°C(For 100% load)
Max. Input Current	See table	Maximum Case Temperature	100°C
No-Load Input Current	See table	Storage Temperature	-40°C~125°C
Input Filter	Capacitors	Cooling	
Input Reflected Ripple Current(3)	20mA pk-pk		
GENERAL SPECIFICATIONS		ABSOLUTE MAXIMUM RATINGS(4)	
Efficiency	See table	These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.	
I/O Isolation Voltage(3 sec)		Input Voltage(100mS)	
Input/Output1&Output2	1000~3000Vdc	5 Modes	0~7 Vdc
I/O Isolation Capacitance	60 pF Typ.	12 Modes	0~15 Vdc
I/O Isolation Resistance	1000M Ohm	15 Modes	0~18 Vdc
Switching Frequency	Variable 80kHz	24 Modes	0~28 Vdc
Humidity	95% rel H	Lead Soldering Temperature	260°C
Reliability Calculated MTBF(MIL-HDBK-217 F)	>1.121 Mhrs	(1.5mm from case 10sec.)	
Safety Standard : (designed to meet)	IEC 60950-1		

## V2 - 1W Regulated Dual Split Output

### PARTNUMBER STRUCTURE



### MODEL SELECTION GUIDE

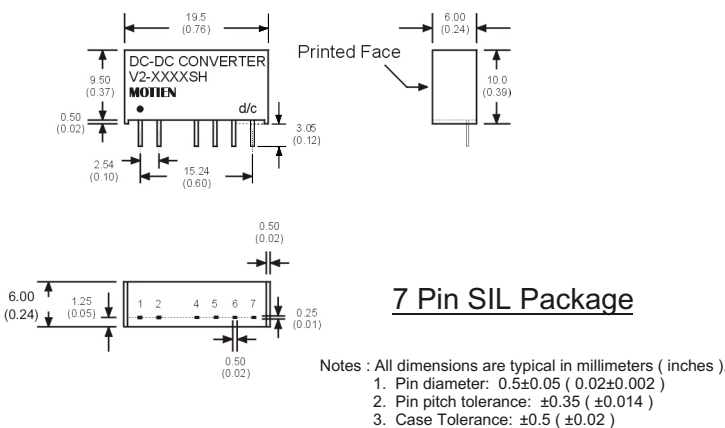
MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Full load(mA) Output1 Output2			
V2-0505S	5	28	307	5, 5	100, 100	65	100	
V2-1205S	12	15	124	5, 5	100, 100	67	100	
V2-1505S	15	12	99	5, 5	100, 100	67	100	
V2-2405S	24	8	59	5, 5	100, 100	70	100	
V2-0505SH	5	28	307	5, 5	100, 100	65	100	
V2-1205SH	12	15	124	5, 5	100, 100	67	100	
V2-1505SH	15	12	99	5, 5	100, 100	67	100	
V2-2405SH	24	8	59	5, 5	100, 100	70	100	

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

### NOTE

1. Ripple/Noise measured with 20MHz bandwidth.
2. Tested by minimal Vin and constant resistive load.
3. Measured Input reflected ripple current with a simulated source inductance of 12uH.
4. Exceeding the absolute ratings of the unit could cause damage. It is not allowed for continuous operating.
5. Operation under no-load conditions will not damage these devices, however they may not meet all listed specifications.

### MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	Dual Split	Dual Split-H
1	+V Input	+V Input
2	-V Input	-V Input
4	+V2 Output	N.P.
5	Ground	+V2 Output
6	+V1 Output	Ground
7	N.P.	+V1 Output