# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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## VG15 Series

### HIGH VOLTAGE SINGLE OUTPUT 15 WATTS DC/DC CONVERTERS



#### FEATURES

- 15W Output
- 250V High Voltage Output
- High Efficiency
- High Density
- Isolated & Regulated
- Operating Temperature: -25° C to +70° C
- Overvoltage Protection
- Overcurrent Protection
- 2:1 and 4:1 Input Voltage Range
- Industry Standard DIP Pinout

#### DISCRIPTION

The VG series is a high voltage, regulated & isolated DC/DC converter with 2:1 or optional 4:1 input voltage range. With a wide operating temperature range, built in overvoltage, and overcurrent protection, providing this unit with high reliability and long life.

#### **ELECTRICAL SPECIFICATIONS**

All specifications are typical at nominal input, full load, and 25° C unless otherwise noted.

#### **INPUT SPECIFICATIONS**

Input Voltage Range

2:1 (4:1) Optional

OUTPUT SPECIFICATIONS		
Output Power	15 Watts Max	
Switching Frequency	300KHz	
Voltage Accuracy	± 1%	
Ripple and Noise, 20MHz BW	1%	
Line Regulation, Full Load	±0.2%	
Load Regulation (No load to Full Load)	±0.5%	
Temperature Coefficient	±0.02%/°C max	
Transient Overshoot (25% Load Step Change)	±5%	
Transient Resp. Recovery Time (25% Load Step Change)	400µsec	
Short Circuit Protection	Hiccup, Auto Recovery	
Overcurrent Protection	120% Max	

#### **GENERAL SPECIFICATIONS**

Isolation Voltage	1500VDC	
Isolation Resistance	100M Ohms	
Isolation Capacitance	300pF	
MTBF	5 x 10 <sup>5</sup> hours	

ENVIRONMENTAL SPECIFICATIONS			
Operating Temperature	-25° C to +70° C (with Derating)		
Storage Temperature Range	-40° C to +105° C		
Maximum Case Temperature	+85° C		
Relative Humidity	5% to 90% RH		
Vibration Resistance	5G		
Cooling Type	Natural Cooling		

PHYSICAL SPECIFICATIONS		
Case Material	Aluminum	
Base Plate Material	Non-Conductive Black Plastic	
Potting Material	Epoxy (UL94-V0)	
Dimensions	2.00 x 1.00 x 0.50 Inches (50.8 x 25.4 x 12.7mm)	
Weight	26g (0.91oz)	

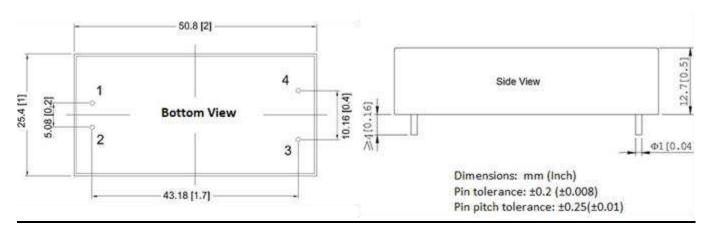
Kaga Electronics (USA) Inc. 780 Montague Expressway, Suite #403, San Jose, CA 95131 Phone: (408) 570-0955 | Fax: (408) 570-0186 | Toll Free: (888) 2-VOLGEN (888-286-5436) www.volgen.com



### **VG15 Series**

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	% typ. EFF
VG15-12S250	9 ~18VDC	250VDC	60mA	81%
VG15-24S250	18 ~ 36VDC	250VDC	60mA	82%
VG15-24S250W	15 ~ 55VDC	250VDC	60mA	82%

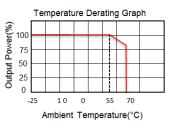
#### **Dimensions:**



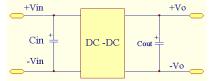
#### Pin Output:

PIN	1	2	3	4
SINGLE	+Vin	-Vin	-Vout	+Vout

#### **Derating Curve:**



#### **Recommended Circuit:**



1. Module plus input capacitance Cin could help to improve the electromagnetic compatibility. It is recommended Cin use 47uF-100uF electrolytic capacitor.

2. Modules plus the output capacitor Cout could help to improve the module's output ripple.

3. Cout recommend to take standard 100uf/A. The current means output current

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