



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!



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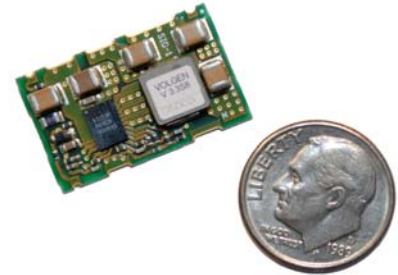
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VSV-m3, m6, m8 is an ultra small size (15×24×4mm size) and light weight (2.6g) step-down DC-DC converter, which has achieved maximum 26W. Since it can correspond from ultra low output voltage of 1.0V, it can be used for the latest DSP, ASIC applications. Due to high-speed response, high efficiency by synchronous rectification circuit technology, saving space by no external components, an excellent performance beyond our common sense has been achieved.

<Features>

- Latest Power-IC adopted
- High-speed Response
- Efficiency 94%, 96%
- ON/OFF Control
- Heat Sink not required
- The Latest Technology, Synchronous Rectification Circuit
- Additional external capacitor not required
- Short-Circuit, Over-Current Protection
- Adjustable Output
- Non-Isolated Type Converter
- Ultra Minimum Size
- Operating Temp. -40°C to +85°C
- High Reliability, High Performance
- RoHs Compliance



<Model, Rating>

Table 1

Model	Rating Input Voltage Vdc	Rating Output Voltage Vdc	Rating Output Current A	No-Load Input Current mA(typ.)	Ripple Noise mVpp(typ.)	Efficiency %(typ.)	Package Type
VSV-3.3S3R0M	5.0 (3.0-5.5)	3.3 (1.0-3.3)	3	30	30	96	SMD
VSV-3.3S6R0M			6	60	50	94	
VSV-3.3S8R0M			8	70	50	96	

Note 1: Rating input voltage () is the voltage range, and the input voltage needs to be 0.5V or more compared to the output voltage.

Note 2: Rating output voltage () is the adjustable range.

Table 2

<Specification>

	VSV-3.3S3R0M	VSV-3.3S6R0M	VSV-3.3S8R0M	Conditions
Input voltage/range	Refer to Table 1.			
Output voltage accuracy	+3.3V±3%			VAR pin open.
Line regulation	0.5% typ.			For the regulation of Vin=3-5.5
Load regulation	1.0% typ.			For the regulation of Iout=0A-rating
Temperature coefficient	±0.02%/ °C typ.			For the regulation of Ta=-40 to +50°C
Adjustable output range	1.0-3.3V			Refer to table 1
Ripple & Noise	30mVp-p typ.	50mVp-p typ.	50mVp-p typ.	BW=20MH z
Efficiency	96%typ.	94%typ.	96%typ.	
Over-Current Protection	Operates at 105% or more rating load, auto recovery type.			Avoid long-time short-circuit condition.
Over-Voltage Protection	None			Refer to page 3, adjusting voltage setting.
No Load Input Current	30mAtyp.	60mAtyp.	70mAtyp.	Iout=0A
Remote on/off control	Between 5pin(RC)–3pin(S.GND) [Open: Output ON, Short: Output OFF]			Refer to page 4, ON/OFF control.
UVLO start up voltage	2.8V typ.			
UVLO end voltage	2.7V typ.			
P-Good output	At normal output : H, At output dropping : L (0-0.4V Vin=+5V Sinks current=9mA or below)			Refer to page 4, power good output.
Operating temp. range	Operating Temp. -40°C to +85°C			Refer to page 6, temp. derating.
Storage temperature range	Storage Temp. -40°C to +85°C (+125°C at baking)			
Humidity range	20%- 95%R.Hmax. (Ma. Wet-bulb temp. 35°C, non-condensing)			
Cooling condition	Refer to the thermal derating on page 6.			
Vibration	5-10Hz All amplitude 10mm (1 hour in each of 3 directional axes), 10-55Hz acceleration 2G (1 hour in each of 3 directional axes)			
Shock	Acceleration 20G (3 directions, 3 times each), Shocking time 11±5ms			
MTBF	1,000,000 Hrs			
Weight	2.6g typ.			Refer to the outline on page 2 for detail dimensions.
Outline	SMD type W=15 L=24 H=4.0 typ. (mm)			

* Unless otherwise specified, input and output is the rating value and ambient temperature is +25°C.

