

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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#### ■ Features :

- 3000VDC I/O isolation
- Internal SMD technology
- · Built-in EMI filter
- · Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- Single in line package
- 100% full load burn-in test
- Low cost / High reliability
- 2 years warranty

## **SPECIFICATION**



ORDER NO.		SPU03L-05	SPU03M-05	SPU03N-05	SPU03L-12	SPU03M-12	SPU03N-12	SPU03L-15	SPU03M-15	SPU03N-15			
DC OUTPUT VOLTAGE		5V			12V	1		15V	1				
ОИТРИТ	CURRENT RANGE		60 ~ 600mA			25 ~ 250mA			20 ~ 200mA				
	EFFICIENCY (Typ.)		82%	83%	83%	85%	86%	86%	86%	86%	88%		
	RATED POWER		3W										
	RIPPLE & NOISE (max.) Note.2		50mVp-p										
	LINE REGULATION Note.3		±1.2% for 1% input variation										
	LOAD REGULATION Note.4		±8.0%										
	VOLTAGE ACCURACY		±2.0%										
	SWITCHING FREQUENCY		60KHz min.										
INPUT	VOLTAGE RANGE		4.5 ~ 5.5V	10.8 ~ 13.2V	21.6 ~ 26.4V	4.5 ~ 5.5V	10.8 ~ 13.2V	21.6 ~ 26.4V	4.5 ~ 5.5V	10.8 ~ 13.2V	21.6 ~ 26.4V		
	NORMAL VOLTAGE		5V	12V	24V	5V	12V	24V	5V	12V	24V		
	INPUT CURRENT	Full load	740mA	305mA	155mA	715mA	300mA	150mA	705mA	300mA	145mA		
		No load	60mA	25mA	15mA	65mA	25mA	15mA	65mA	30mA	15mA		
	FILTER		Capacitor type										
	PROTECTION		Fuse recommended										
PROTECTION	OVERLOAD		Momentary										
			Protection type: Broken										
	SHORT CIRCUIT		Momentary										
			Protection type: Broken										
	WORKING TEMP.		-40 ~ +90°C (Refer to "Derating Curve")										
ENVIRONMENT	WORKING HUMIDITY		20% ~ 90% RH non-condensing										
	STORAGE TEMP., HUMIDITY		-40~+105℃,10~95% RH										
	TEMP. COEFFICIENT		±0.03% / ℃ (0 ~ 50℃)										
	VIBRATION		10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes										
SAFETY & EMC	WITHSTAND VOLTAGE		I/P-O/P:3KVDC										
	ISOLATION RESISTANCE		I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH										
			80pF max.										
	EMC EMISSION		Compliance to EN55032 Class B, FCC part 15 Class B										
EMC IMMUNITY		Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A											
OTHERS			700khrs min. MIL-HDBK-217F(25°C)										
			19.6*7.5*10.2mm or 0.77"*0.30"*0.40" inch (L*W*H)										
	WEIGHT		2.9g			2.9g							

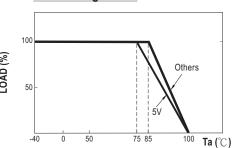
#### ■ Mechanical Specification

# Unit: mm (inch) 3.81 (0.15) FRONT VIEW 0.5 (0.02) 7.5 (0.3) BOTTOM VIEW 2.54 (0.10) NOTE:Pin size tolerance $0.50 \times 0.30 \text{mm} \pm 0.05 \text{mm}$

## **■** Pin Configuration

Pin No.	Output				
1	+Vin				
2	-Vin				
5	-Vout				
7	+Vout				

## ■ Derating Curve



### NOTE

- 2. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 uf & 47 uf capacitor.
- 3.Line regulation is measured from low line to high line at rated load.
- 4.Load regulation is measured from 20% to 100% rated load.