



**DESCRIPTION:** 1W 3KVDC Isolation Regulated Single Output DC/DC Converters

PPB-1W series are specially designed for 3KVDC isolation & regulated single and output application, he input voltage range within  $\pm 5\%$ , regulated output with very low ripple noise. short circuit protection

## FEATURES

SIP package	3000VDC Isolation	Operating temperature -40°C to 105°C
Regulated single output	Continuous short circuit protection	RoHS Compliance, CE certification
Low ripple noise	Small footprint	No external component required
Internal SMD construction	Input voltage:3.3V,5V,12V,15V,24V	Output voltage:3.3V,5V,9V,12V,15V,24V

## SELECTION GUIDE

Part Number	Input		Output			Efficiency (%)
	Voltage (VDC)		Voltage (VDC)	Current (mA)		
	Nominal	Range		Max	Min	
PPB0303S-1W	3.3	3.13~3.47	3.3	303	30	66
PPB0305S-1W	3.3	3.13~3.47	5	200	20	66
PPB0503S-1W	5	4.75~5.25	3.3	303	30	66
PPB0505S-W75	5	4.75~5.25	5	150	15	68
PPB0505S-1W	5	4.75~5.25	5	200	20	66
PPB0509S-1W	5	4.75~5.25	9	111	12	70
PPB0512S-1W	5	4.75~5.25	12	83	9	71
PPB0515S-1W	5	4.75~5.25	15	67	7	73
PPB0524S-1W	5	4.75~5.25	24	42	5	68
PPB1205S-W75	12	11.4~12.6	5	150	15	70
PPB1205S-1W	12	11.4~12.6	5	200	20	67
PPB1209S-1W	12	11.4~12.6	9	111	12	72
PPB1212S-1W	12	11.4~12.6	12	83	9	70
PPB1215S-1W	12	11.4~12.6	15	67	7	74
PPB1224S-1W	12	11.4~12.6	24	42	5	68
PPB1505S-W75	15	14.25~15.75	5	150	15	68
PPB1505S-1W	15	14.25~15.75	5	200	20	67
PPB1509S-1W	15	14.25~15.75	9	111	12	71
PPB1512S-1W	15	14.25~15.75	12	83	9	71
PPB1515S-1W	15	14.25~15.75	15	67	7	72
PPB1524S-1W	15	14.25~15.75	24	42	5	68
PPB2405S-W75	24	22.8~25.2	5	150	15	68
PPB2405S-1W	24	22.8~25.2	5	200	20	68
PPB2409S-1W	24	22.8~25.2	9	111	12	68
PPB2412S-1W	24	22.8~25.2	12	83	9	73
PPB2415S-1W	24	22.8~25.2	15	67	7	75
PPB2424S-1W	24	22.8~25.2	24	42	5	68

Add suffix "P" for continuous short circuit protection, for example PPB0505SP-1W.

## ISOLATION CHARACTERISTICS

Item	Test condition	Min.	Typ.	Max.	Units
Isolation voltage	Tested for 1 minute and 1mA max	3000			VDC
Isolation resistance	Test at 1000VDC	1			GΩ

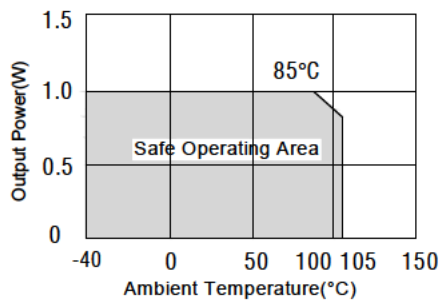
## OUTPUT SPECIFICATIONS

Item	Test Conditions	Min.	Typ.	Max.	Units
Output power		0.1		1	W
Line regulation	High VIN to low VIN (voltage variation +/-5%)			$\pm 0.25$	%
Load regulation	10% to 100% load			$\pm 1$	%
Output voltage accuracy	100% full load			$\pm 3$	%
Temperature drift	100% full load			$\pm 0.03$	%/°C
Ripple	20MHz Bandwidth		10	20	mv p-p
Noise	20MHz Bandwidth		50	75	mv p-p
Switching frequency	100% load, nominal input		100		KHz

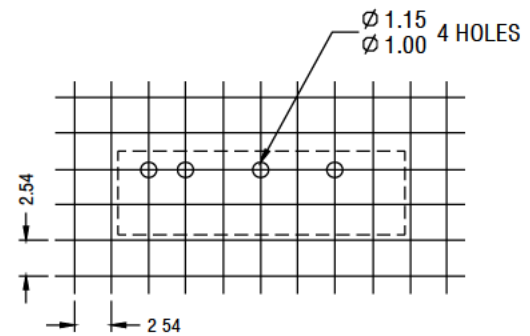
### COMMON SPECIFICATIONS

Item	Test condition	Min.	Typ.	Max.	Units
Storage humidity	Test Condition			95	%
Operating temperature	Derating if the temperature $\geq 85^{\circ}\text{C}$	-40		105	$^{\circ}\text{C}$
Storage temperature		-55		125	$^{\circ}\text{C}$
Temp. Rise at full load			15	25	$^{\circ}\text{C}$
Lead temperature				300	$^{\circ}\text{C}$
Short circuit protection	PPBxx24S-1W			1	S
Short circuit protection	Others	Continuous			
Cooling		Free air convection			
Case material		Plastic (UL94-V0)			
MTBF		3500			K hours
Weight	SIP		2.1		g

### TEMPERATURE DERATING GRAPHS

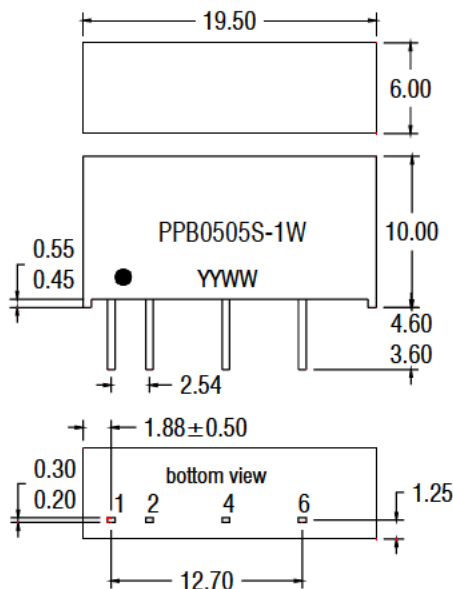


### RECOMMENDED FOOTPRINT DETAILS



### MECHANICAL DIMENSIONS

#### SIP Package

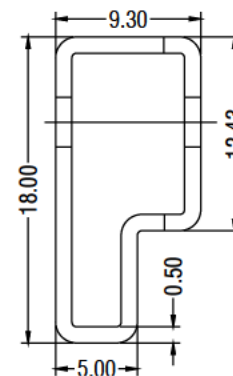


All dimensions in mm  $\pm 0.25$  mm. All pins on a 2.54mm pitch. Weight: 2.1g

### PIN CONNECTIONS

7 PIN SIP	
Pin	Function
1	+Vin
2	-Vin
4	-Vout
6	+Vout

### TUBE OUTLINE DIMENSIONS



All dimensions in mm  $\pm 0.25$ mm Tube Quantity : 25PCS