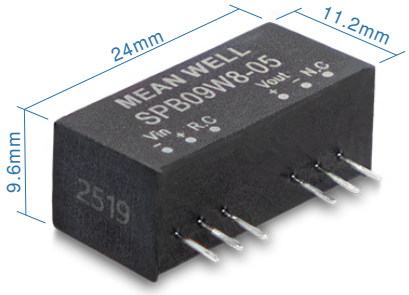
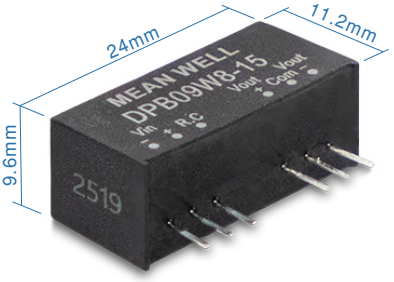
9W SIP Package 8:1 Ultra-Wide Input DC-DC Regulated Converter SPB09W8 & DPB09W8 series





TPTC020

Automate Industrial Security Network Telecom

Features

- SIP8 package with industry standard pinout
- 8:1(9~75Vdc) ultra-wide input range
- Operating temperature range -40 ~ +90℃
- No minimum load required
- High efficiency up to 87%
- Protections: Short circuit (Continuous) / Overload / UVLO
- 1.5KVdc I/O isolation
- Remote ON/OFF control
- 3 years warranty

Applications

- Telecom/datacom system
- Wireless network
- Industrial control facility
- Instrument
- Analyzer
- Detector
- Data switch

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

SPB09W8 and DPB09W8 series are 9W isolated and regulated module type DC-DC converter with SIP8 package. It features international standard pins, a high efficiency up to 87%, wide working temperature range -40~+90℃, 1.5KVdc I/P-O/P isolation voltage, continuous-mode short circuit protection, etc. The models account for different input voltage 9~75Vdc 8:1 ultra-wide input range, and various output voltage, 3.3V/5V/9V/12V/15V/24V for single output and ±5V/±12V/±15V for dual outputs, which are suitable for all kinds of systems, Such as industrial control, telecommunication field, distributed power architecture, and so on.

Model Encoding

SPB 09 W8 – 12

- 12: Output voltage (3.3/5/9/12/15/24Vdc，±5/±12/±15Vdc)
- W8: 8:1(9~75Vdc) Wide input voltage
- 09: Rated wattage
- S: Series name { S:Single output, D:Dual output }

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MODEL SELECTION TABLE

ORDER NO.	INPUT			OUTPUT		EFFICIENCY (TYP.)	CAPACITOR LOAD (MAX.)
	INPUT VOLTAGE (RANGE)	INPUT CURRENT		OUTPUT VOLTAGE	OUTPUT CURRENT		
		NO LOAD	FULL LOAD				
SPB09W8-03	Nominal 12V, 24V,36V,48V,72V (9 ~ 75V)	10mA	339mA	3.3V	0 ~ 2000mA	81%	680μF
SPB09W8-05		10mA	401mA	5V	0 ~ 1600mA	83%	680μF
SPB09W8-09		10mA	436mA	9V	0 ~ 1000mA	86%	470μF
SPB09W8-12		10mA	431mA	12V	0 ~ 750mA	86%	330μF
SPB09W8-15		10mA	431mA	15V	0 ~ 600mA	86%	220μF
SPB09W8-24		10mA	431mA	24V	0 ~ 375mA	87%	100μF
DPB09W8-05		10mA	397mA	±5V	±0 ~ 800mA	82%	*330μF
DPB09W8-12		10mA	431mA	±12V	±0 ~ 375mA	87%	*150μF
DPB09W8-15		10mA	431mA	±15V	±0 ~ 300mA	86%	*100μF

* For each output

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SPECIFICATION

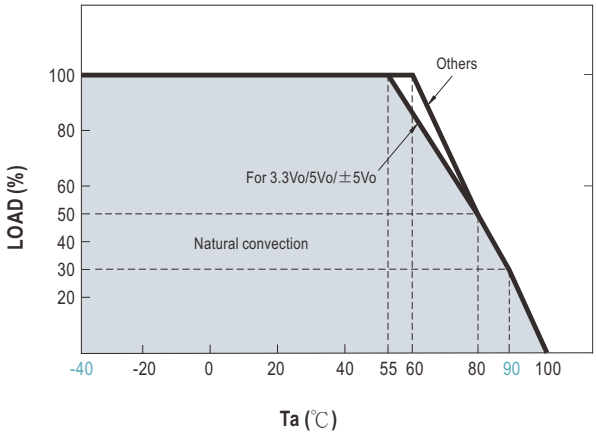
INPUT			
VOLTAGE RANGE	9~75Vdc		
SURGE VOLTAGE (100ms max.)	100Vdc		
FILTER	Pi network		
PROTECTION	Fuse recommended. 2A Slow-Blow		
OUTPUT			
VOLTAGE ACCURACY	±2%		
RATED POWER	9W		
RIPPLE & NOISE Note.2	3.3~9V: 100mV Vp-p max. 12~24V: 1% Output Vp-p max.		
LINE REGULATION Note.3	±0.5%		
LOAD REGULATION Note.4	Single output models: ±0.5% (±1% for 3.3Vout model), Dual output models: ±0.5%		
CROSS REGULATION	±5% @ 25%~100% Load only dual output		
SWITCHING FREQUENCY (Min.)	300KHz		
PROTECTION			
SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
OVERLOAD	120 ~ 230% rated output power		
	Protection type : Recovers automatically after fault condition is removed		
UNDER VOLTAGE LOCKOUT (Typ.)	Start-up voltage	8.8Vdc	
	Shutdown voltage	8Vdc	
FUNCTION			
REMOTE CONTROL	Power ON: R.C. ~ -Vin >2.5Vdc~30Vdc or open circuit ; Power OFF: R.C. ~ -Vin <1Vdc or short		
ENVIRONMENT			
COOLING	Free-air convection		
WORKING TEMP.	-40 ~ +90℃ (Refer to "Derating Curve")		
CASE TEMPERATURE	+115℃ max.		
WORKING HUMIDITY	20% ~ 90% RH non-condensing		
STORAGE TEMP., HUMIDITY	-55 ~ +125℃, 10 ~ 95% RH non-condensing		
TEMP. COEFFICIENT	0.05% / ℃ (0 ~ 70℃)		
SOLDERING TEMPERATURE	1.5mm from case of 3 ~ 5sec./260℃ max.		
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC (Note.5)			
SAFETY STANDARDS	EAC TP TC 020/2011 approved		
WITHSTAND VOLTAGE	I/P-O/P:1.5KVdc		
ISOLATION RESISTANCE	I/P-O/P:1000M Ohms / 500Vdc / 25℃/ 70% RH		
ISOLATION CAPACITANCE (Typ.)	80pF		
EMC EMISSION	**Parameter**	**Standard**	**Test Level / Note**
	Conducted	BS EN/EN55032(CISPR32)	N/A
	Radiated	BS EN/EN55032(CISPR32)	Class A with external components
EMC IMMUNITY	**Parameter**	**Standard**	**Test Level / Note**
	ESD	BS EN/EN61000-4-2	Level 3, ±8KV air
	Radiated Susceptibility	BS EN/EN61000-4-3	Level 2, 3V/m
	EFT/Bursts	BS EN/EN61000-4-4	Level 1, 0.5KV at power
	Surge	BS EN/EN61000-4-5	Level 2, 0.5KV Line-Line
	Conducted	BS EN/EN61000-4-6	Level 2, 3V(e.m.f.)
	Magnetic Field	BS EN/EN61000-4-8	Level 1, 1A/m
OTHERS			
MTBF	>300Khrs MIL-HDBK-217F(25℃)		
DIMENSION (L*W*H)	**24*9.6*11.2mm (0.94*0.38*0.44 inch)**		
CASE MATERIAL	Non-Conductive black plastic (UL 94V-0 rated)		
PACKING	5g ; 21pcs/per tube, 2100pcs/100 tube/per carton		

NOTE

1.All parameters are specified at normal input(24Vdc), rated load, 25℃ 70% RH ambient.
2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor.
3.Line regulation is measured from low line to high line at rated load.
4.Load regulation is measured from 0% to 100% rated load.
5.The final equipment must be re-confirm that it still meet EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.”(as available on http://www.meanwell.com)
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

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■ Derating Curve

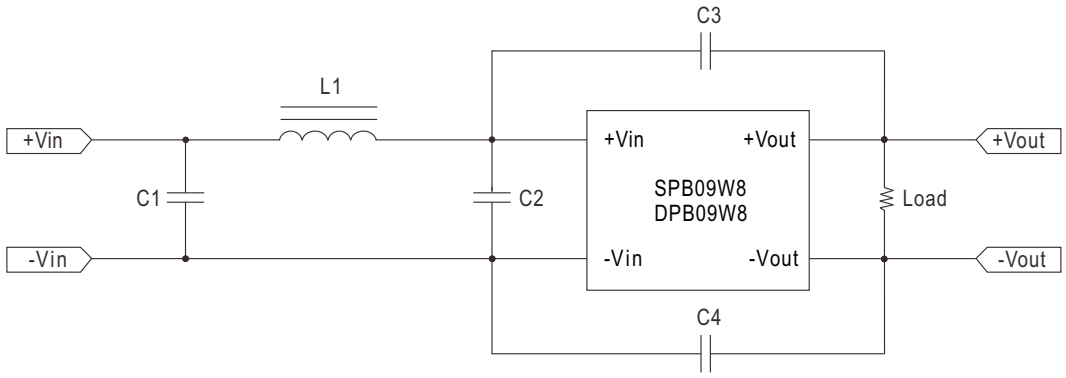


■ Remote ON/OFF Control

Remote On/Off Control			
Control Input	Pin3	Control Common	Pin1
Control Voltage		Converter Shutdown Idle Current10mA	10mA
ON	>+2.5~30Vdc or Open Circuit	Logic Compatibility	CMOS or Open Collector TTL
OFF	<+1.0Vdc or Jumper Short to Pin1		

■ EMC Suggestion Circuit

※ EMC Test standard: BS EN/EN55032 radiated Class A test conditions recommendations:
Input Voltage: Nominal, Output Load: Full Load

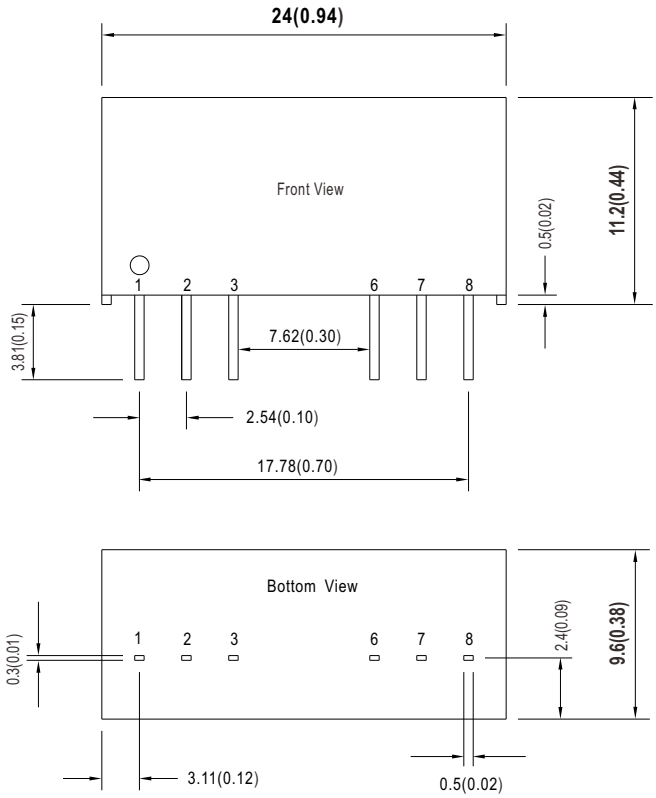


Model No.	BS EN/EN55032 radiated Class A				
	C1	C2	C3	C4	L1
SPB09W8 DPB09W8	X	2.2μF/100V MLCC	102/3KV	102/3KV	X

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■ Mechanical Specification

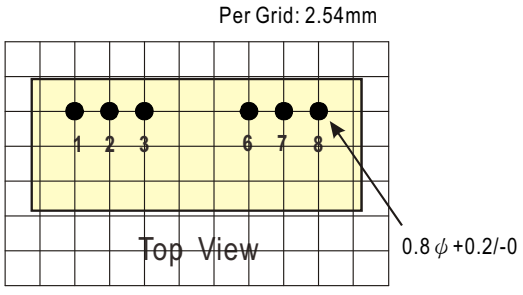
- All dimensions in mm(inch)
- Tolerance:x.x±0.5mm(x.xx±0.02")
  x.xx±0.25mm(x.xxx±0.010")
- Pin size is 0.50x0.30mm (0.02"x0.01")
- Pin pitch tolerance:±0.05mm (±0.002")



■ Pin Assignment

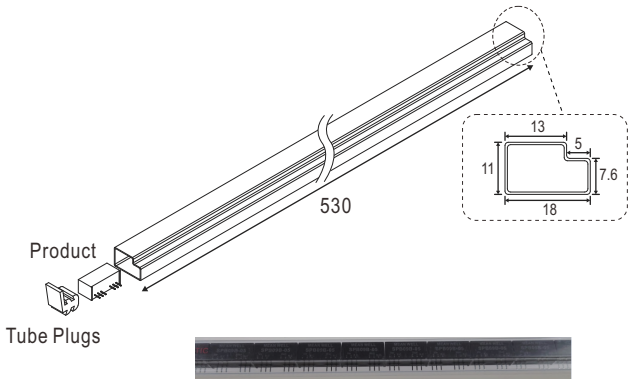
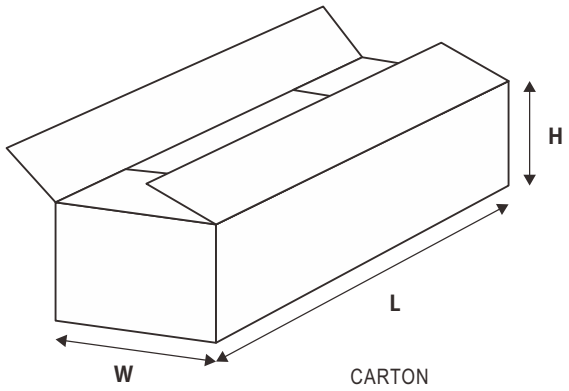
Pin-Out		
Pin No.	SPB09W8 (Single output)	DPB09W8 (Dual output)
1	-Vin	-Vin
2	+Vin	+Vin
3	R.C.	R.C.
6	+Vout	+Vout
7	-Vout	Common
8	N.C.	-Vout

* N.C. : No connected



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■ Packing

Standard Tube Packing	MPQ Per Tube (PCS)	One Tube G.W.	Max. Q'TY/ Carton(PCS)	One Carton G.W.
Unit : mm  Tube pattern  CARTON L620 x W230 x H230	21	125g	2100	13.3Kg

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html

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