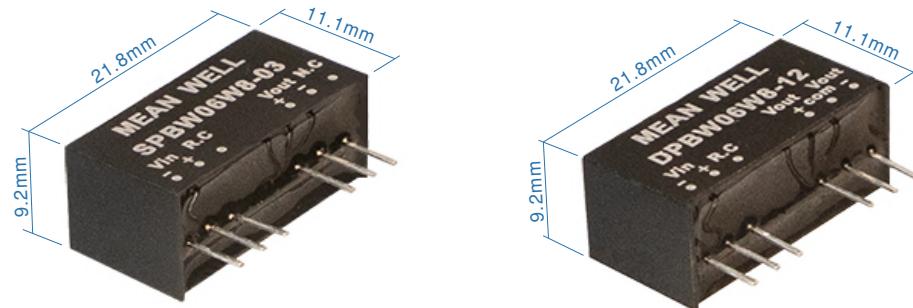




6W SIP Package 8:1 Ultra-Wide Input DC-DC Regulated Converter **SPBW06W8 & DPBW06W8** series



EAC CE UK CA
TPTC020



■ Features

- SIP8 package with industry standard pinout
- 8:1(9~75Vdc) ultra-wide input range
- Operating temperature range -40 ~ +85°C
- No minimum load required
- High efficiency up to 87%
- Protections: Short circuit (Continuous) / Overload / UVLO
- 3KVdc 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

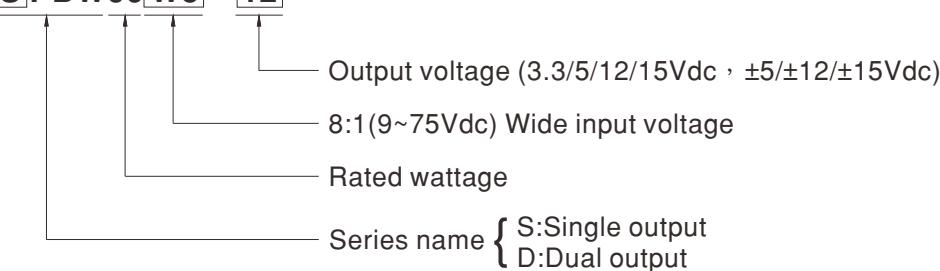
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ Description

SPBW06W8 and DPBW06W8 series are 6W 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~+85°C , 3KVdc I/P-O/P isolation voltage, Compliance to BS EN/EN55032 radiated Class A/B with additional components, continuous-mode short circuit protection, etc. SPBW06W8 and DPBW06W8 have an ultra-wide input range of 8:1(9~75Vdc), and various output voltage, 3.3V/5V/12V/15V 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

SPBW06W8 - 12





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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						
SPBW06W8-03	Nominal 12V, 24V, 36V, 48V, 72V (9 ~ 75V)	4mA	131mA	3.3V	0 ~ 1500mA	79%	1500µF		
SPBW06W8-05		4mA	153mA	5V	0 ~ 1200mA	82%	1200µF		
SPBW06W8-12		5mA	145mA	12V	0 ~ 500mA	87%	560µF		
SPBW06W8-15		5mA	145mA	15V	0 ~ 400mA	86%	470µF		
DPBW06W8-05		5mA	151mA	±5V	±0 ~ 600mA	83%	*680µF		
DPBW06W8-12		5mA	145mA	±12V	±0 ~ 250mA	86%	*330µF		
DPBW06W8-15		5mA	147mA	±15V	±0 ~ 200mA	85%	*220µF		

* For each output

SPECIFICATION
INPUT

VOLTAGE RANGE	9~75Vdc
SURGE VOLTAGE (100ms max.)	100Vdc
FILTER	Internal capacitor
PROTECTION	Fuse recommended. 2A Fast-Blow.

OUTPUT

VOLTAGE ACCURACY	±1.5%
RATED POWER	6W
RIPPLE & NOISE Note.2	100mVp-p
LINE REGULATION Note.3	±0.5%
LOAD REGULATION Note.4	Single output models: ±0.5%, Dual output models: ±1%
CROSS REGULATION	±5% @ 25%~100% Load only dual output
SWITCHING FREQUENCY (Typ.)	470KHz

PROTECTION

SHORT CIRCUIT	Protection type : Continuous, automatic recovery	
	110 ~ 230% rated output power	
OVERLOAD	Protection type : Recovers automatically after fault condition is removed	
	Start-up voltage	8.8Vdc

FUNCTION

REMOTE CONTROL	Power ON: R.C. ~ -Vin <1.2Vdc or open circuit ; Power OFF: R.C. ~ -Vin >5.5 ~ 15Vdc
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ENVIRONMENT

COOLING	Free-air convection		
WORKING TEMP.	-40 ~ +85°C (Refer to "Derating Curve")		
CASE TEMPERATURE	+120°C max.		
WORKING HUMIDITY	20% ~ 90% RH non-condensing		
STORAGE TEMP., HUMIDITY	-55 ~ +125°C, 10 ~ 95% RH non-condensing		
TEMP. COEFFICIENT	0.03% / °C (0 ~ 80°C)		
SOLDERING TEMPERATURE	1.5mm from case of 1 ~ 3sec./260°C 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:3KVdc		
ISOLATION RESISTANCE	I/P-O/P:1000M Ohms / 500VDC / 25°C / 70% RH		
ISOLATION CAPACITANCE (Typ.)	1000pF		
EMC EMISSION	Parameter	Standard	Test Level / Note
	Conducted	BS EN/EN55032(CISPR32)	Class A/B with external components
	Radiated	BS EN/EN55032(CISPR32)	Class A/B with external components
EMC IMMUNITY	Parameter	Standard	Test Level / Note
	ESD	BS EN/EN61000-4-2	Level 2, ±8KV air, ±4KV contact
	Radiated Susceptibility	BS EN/EN61000-4-3	Level 2, 3V/m
	EFT/Bursts	BS EN/EN61000-4-4	Level 1, 0.5KV
	Surge	BS EN/EN61000-4-5	Level 2, 0.5KV Line-Line
	Conducted	BS EN/EN61000-4-6	Level 2, 3V(e.m.f.)

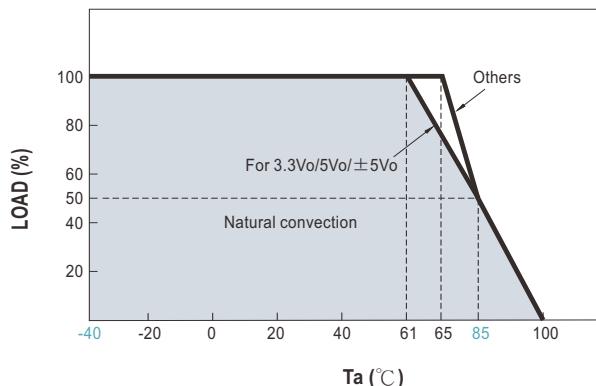
OTHERS

MTBF	1850Khrs MIL-HDBK-217F(25°C)
DIMENSION (L*W*H)	21.8*9.2*11.1mm (0.86*0.36*0.44 inch)
CASE MATERIAL	Non-Conductive black plastic (UL 94V-0 rated)
PACKING	4.8g ; 14pcs/per tube, 2058pcs/147 tube/per carton

NOTE

- 1.All parameters are specified at normal input (48Vdc), rated load, 25°C 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>

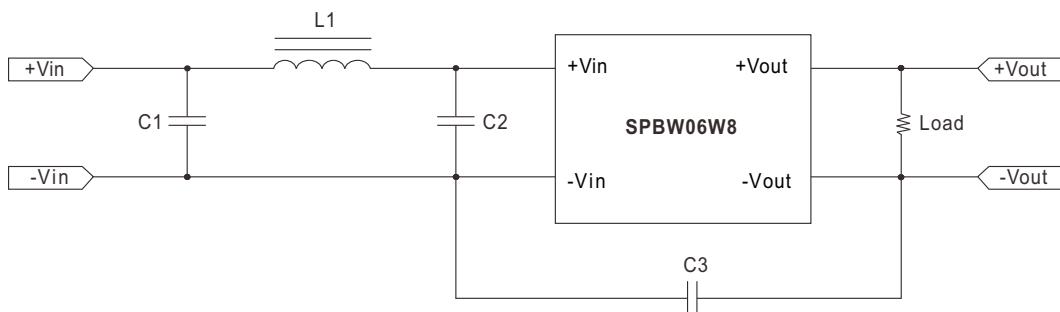
■ Derating Curve



■ EMC Suggestion Circuit

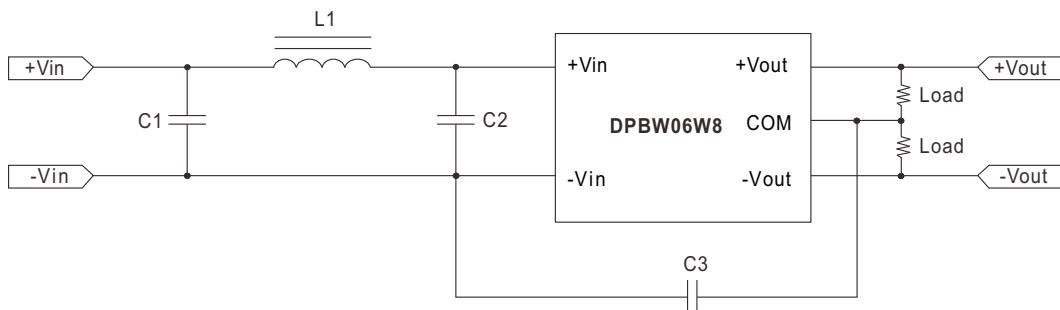
※ EMC Test standard: BS EN/EN55032 conducted and radiated Class A and Class B emission test condition:
Input Voltage: Nominal, Output Load: Full Load

◎SPBW06W8



Model No.	BS EN/EN55032 conducted Class A			BS EN/EN55032 conducted Class B		
	C1	C2,C3	L1	C1,C2	C3	L1
SPBW06W8	2.2μF/100V 1210 X7R	NC	10μH	2.2μF/100V 1210 X7R	1000pF/4KV 1808 X7R	47μH

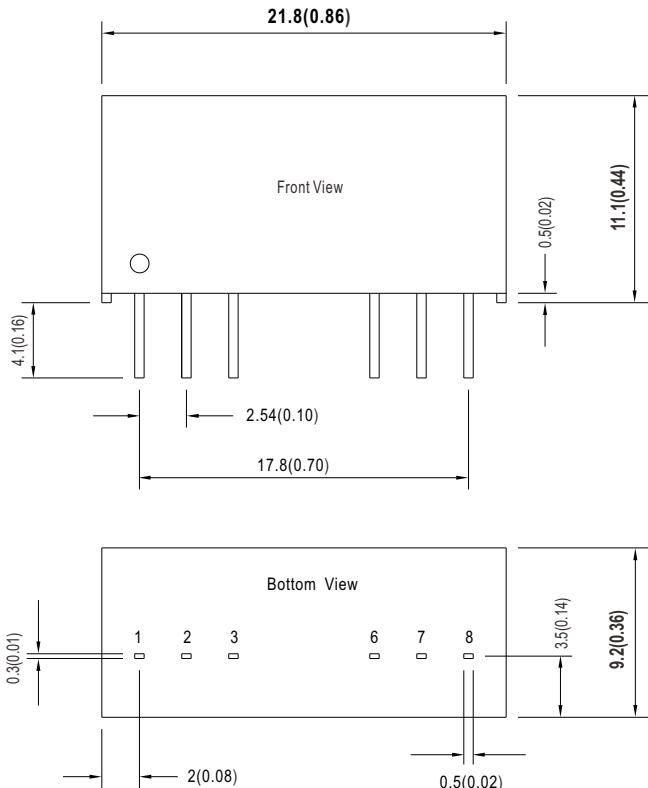
◎DPBW06W8



Model No.	BS EN/EN55032 radiated Class A			BS EN/EN55032 radiated Class B		
	C1	C2,C3	L1	C1,C2	C3	L1
DPBW06W8	2.2μF/100V 1210 X7R	NC	10μH	2.2μF/100V 1210 X7R	1000pF/4KV 1808 X7R	47μH

■ Mechanical Specification

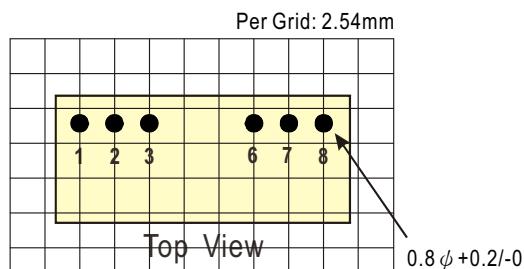
- All dimensions in mm(inch)
- Tolerance:x.x±0.5mm(x.xx±0.02")
- Pin pitch tolerance:±0.05mm ($\pm 0.002"$)



■ Pin Assignment

Pin-Out		
Pin No.	SPBW06W8 (Single output)	DPBW06W8 (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



■ Packing

Standard Tube Packing	MPQ Per Tube (PCS)	One Tube G.W.	Max. Q'TY/ Carton(PCS)	One Carton G.W.
<p>Unit : mm</p> <p>Product</p> <p>Tube Nails</p> <p>Tube pattern</p> <p>CARTON L390.9 x W284.8 x H175.7</p>	14	78.7g	2058	13.57Kg

■ Installation Manual

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