

**Features**

- 30 WATT DIL PACKAGE
- 4:1 WIDE INPUT VOLTAGE
- EFFICIENCY TO 89%
- PI INPUT FILTER
- 100% BURNED IN
- UL 94V-0 PACKAGE MATERIAL
- CUSTOMIZED SOLUTIONS AVAILABLE
- REGULATED OUTPUT TYPE

**30 Watt DC/DC Converter**

WIDE INPUT VOLTAGE RANGE  
30 WATT DC-DC CONVERTER

**Input Specifications**

Input Voltage	:24Vdc	
Input Voltage Range	:9~36Vdc	@9Vin Min ; 36Vin Max
Under voltage shut down (lock-out circuit)	:8 Vdc Typ	
Remote On/Off	:Open or 3~15Vdc(DC/DC ON) :Short or 0~1.2Vdc(DC/DC OFF)	@Positive logic (Standard) (Refer to -Vin PIN)
	:-0.5 ~ +1.0 mA	@Input current of Ctrl pin
	:2.0 mA TYP	@Remote off input current

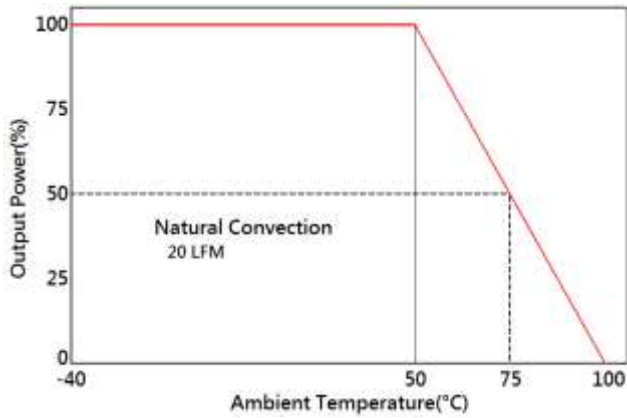
**Output Specifications**

Output Voltage	:12Vdc	
Output Voltage Accuracy	:±2%	@11.76~12.24Vdc @Vin=9~36Vdc
Output Current	:2500mA	
Efficiency	:89% TYP	@Vin=24Vdc
Ripple / Noise	:100mVp-p MAX	@20MHz Bandwidth, with 22uF*2 MLCC
Short Circuit Protection	:Continuous	@Hiccup,auto-recovery
Line Regulation	:±0.5% MAX	@LL TO HL, Full Load
Load Regulation	:±0.5% MAX	@25% TO 100% load
Over Voltage Protection	:16.55V TYP	@13.5V MIN ; 19.6V MAX
Over load protection	:170% MAX	@% of lout rated; Hiccup mode

**General Specifications**

Operating Temperature Range	:-40°C ~ +75°C (with derating)	Output load derate 2% per degree Celsius above 50°C as refer to temperature derating graph.
Storage Temperature	:-55°C ~ +125°C	
Switching Frequency	:330KHz TYP	
Humidity	:95% MAX	
Isolation Voltage	:1500VDC	
Isolation Resistance	:1000M Ω MIN	
Cooling	:Natural Convection	@20LFM
MTBF	:>=1200000 Hours	MIL-HDBK-217F@25°C,Ground Benign.
Case Material	:Six-side shielded case	
Weight	:22g TYP	
Conducted Emission	:EN55032 Class B	(with external components)
Radiated Emission	:EN55032 Class B	(with external components)

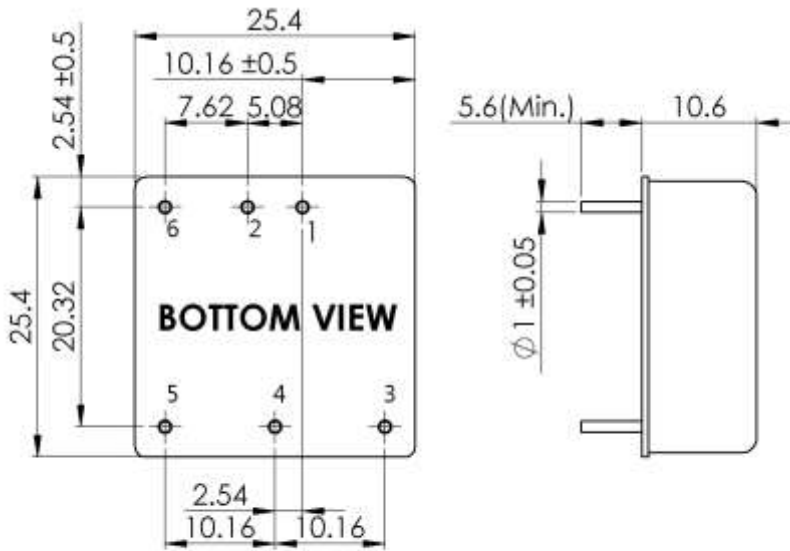
**Temperature Derating Graph** **Part Number**



**96DW-** **24** **S** **12** **R** **6** **NL**  
**A** **B** **C** **D** **E** **F** **G**

- A: Series**
- B: Input Voltage**
- C: Single Output**
- D: Output Voltage**
- E: Regulated(R)**
- F: Package**
- G: RoHS Version**

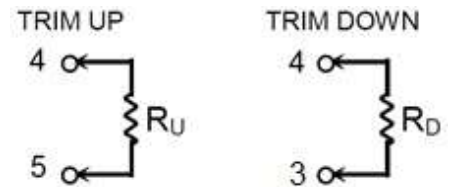
**Outline Dimensions**



**Unit : mm**  
**Tolerance : XX.X ± 0.5 , XX.XX ± 0.25**

**External Output Trimming**

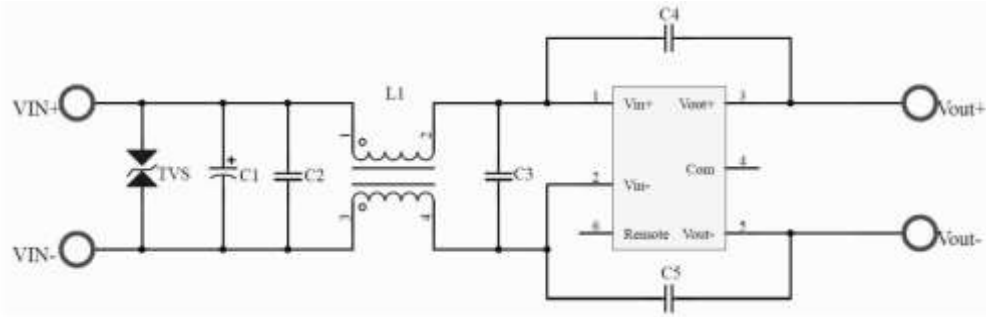
Output can be externally trimmed by using the method shown below.



**PIN Assignment**

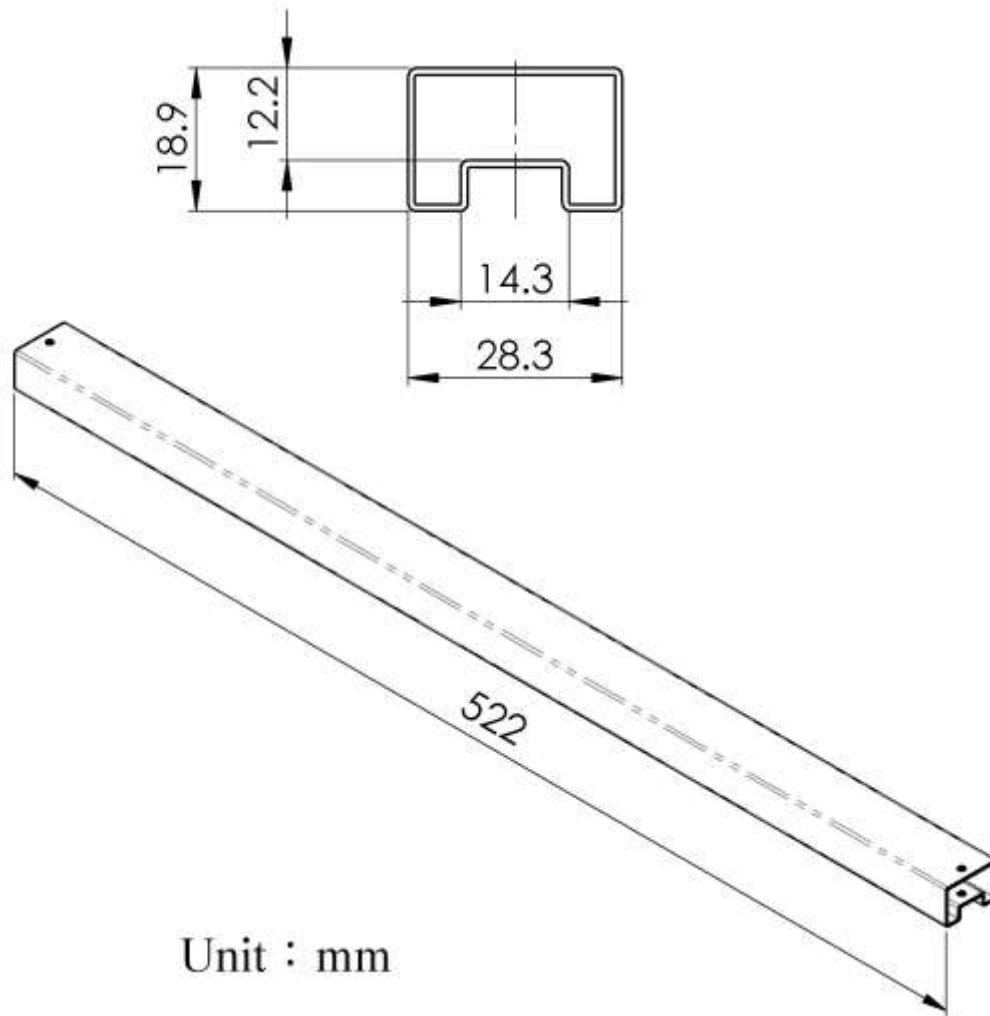
PIN	1	2	3	4	5	6
FUNCTION	+Vin	-Vin	+Vout	Trim	-Vout	Remote On/Off

**Recommended Test Circuit Meets EN55024 Criterion A and EN55032 Class B**



24V	C1 220uF/100V&C2&C3 4.7uF/50V	C4&C5 2200pF/2kV	L1 0.94mH	TVS 3.0SMCJ58AG
48V	C1 220uF/100V&C2&C3 4.7uF/100V	C4&C5 3200pF/2kV	L1 6.20mH	TVS 3.0SMCJ120AG

**Packing Formation**



Unit : mm

<b>Weight</b>	<b>: 22 grams/pcs</b>
<b>Tube</b>	<b>: 19 pcs</b>