

**Features**

- 20 WATT DIL PACKAGE
- 2:1 WIDE INPUT VOLTAGE
- EFFICIENCY TO 88%
- PI INPUT FILTER
- 100% BURNED IN
- UL 94V-0 PACKAGE MATERIAL
- CUSTOMIZED SOLUTIONS AVAILABLE
- REGULATED OUTPUT TYPE



**20 Watt DC/DC  
Converter**

WIDE INPUT VOLTAGE RANGE  
20 WATT DC-DC CONVERTER

**Input Specifications**

Input Voltage	:12Vdc	
Input Voltage Range	:9~18Vdc	
Under voltage shut down (lock-out circuit)	:8.0 Vdc Typ	
Remote ON/OFF	:Open or 3~12Vdc(DC/DC ON)	@ Positive logic (Standard)
	:Short or 0~1.2Vdc(DC/DC OFF)	(Refer to -Vin PIN)
	:-0.5 ~ +0.5 mA	@ Input current of Remote ON/OFF pin
	:3 mA TYP	@ Remote off input current

**Output Specifications**

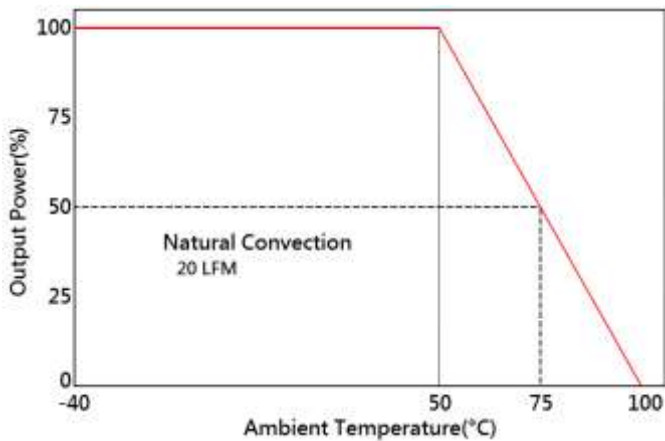
Output Voltage	:24Vdc	
Output Voltage Accuracy	:±2%	@23.52~24.48Vdc@Vin=9~18Vdc
Output Current	:833mA	
Efficiency	:88% TYP	@Vin=12Vdc
Ripple / Noise	:100mVp-p MAX	@20MHz Bandwidth
Short Circuit Protection	:Continuous	@Hiccup, auto-recovery
Line Regulation	:±0.5% MAX	@Full Load
Load Regulation	:±0.5% MAX	@25% TO 100% Load

**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	:1000MΩ MIN	
Cooling	:Natural Convection	@20LFM
MTBF	:>=340000 Hours	MIL-HDBK-217F@25°C,Ground Benign.
Case Material	:Six-side shielded case	
Weight	:16.5g TYP	
Conducted Emission	:EN55022 Class A	
Radiated Emission	:EN55022 Class A	

Temperature Derating Graph

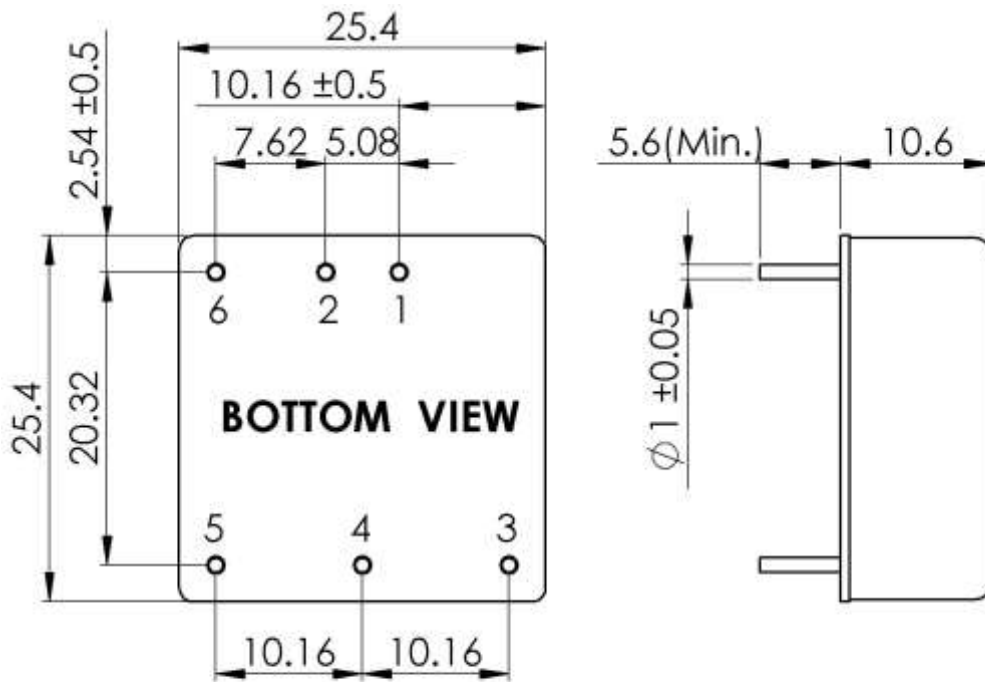
Part Number



**68D20-** **12** **S** **24** **R** **NL**  
**A** **B** **C** **D** **E** **F**

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

Outline Dimensions

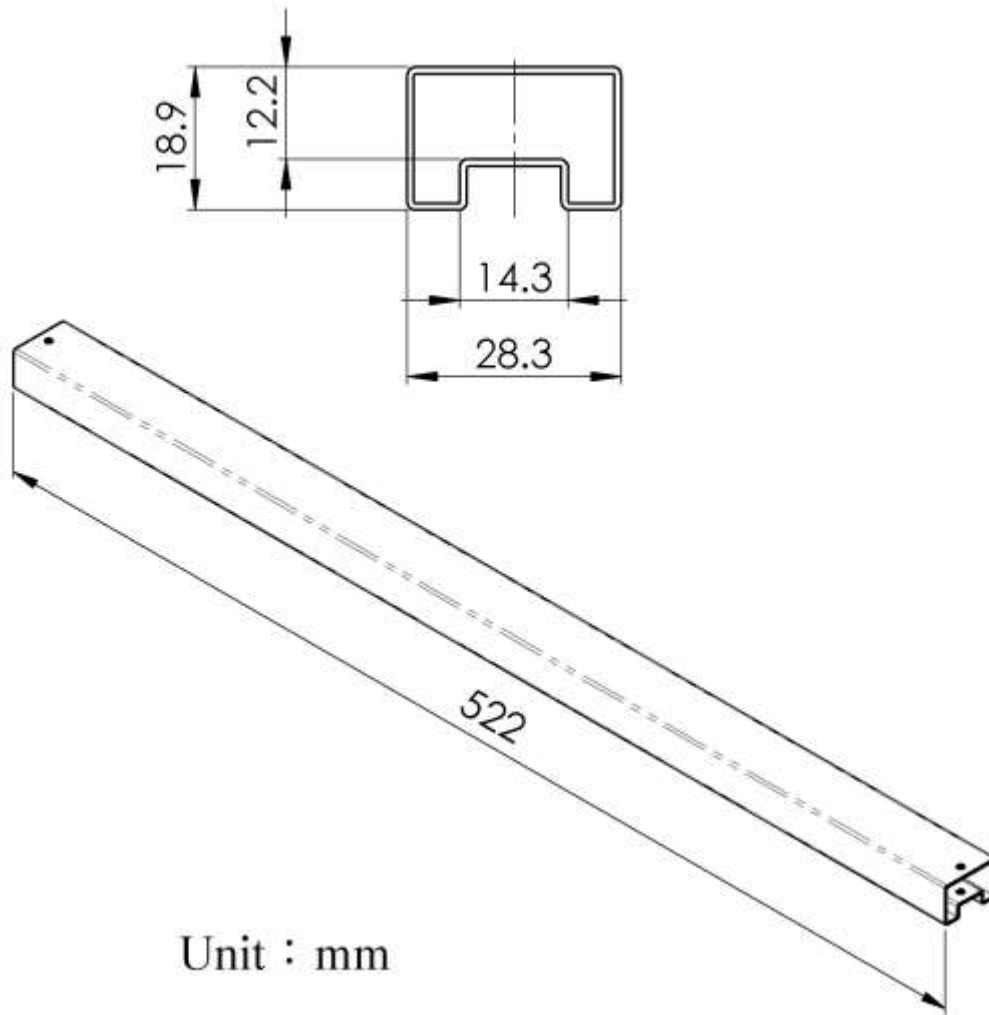


**Unit : mm**  
**Tolerance : XX.X ±0.5 , XX.XX ±0.25**

**PIN Assignment**

PIN	1	2	3	4	5	6
FUNCTION	+Vin	-Vin	+Vout	Trim	-Vout	Remote ON/OFF

## Packing Formation



Unit : mm

Weight	: 16.5 grams/pcs
TUBE	: 19 pcs