



Yuan Dean Scientific CO.,LTD

68D20 SERIES

Wide Input Voltage Range 20Watt Dc-Dc Converter



FEATURES:

- 20W DIL PACKAGE
- 2:1 WIDE INPUT RANGE
- 100% BURNED IN
- HIGH EFFICIENCY
- UL94V-0 PACKAGE MATERIAL
- CUSTOMIZED SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- Remote Control:On/Off



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Voltage	Input Current		Output Voltage	Output Current	Efficiency	Capacitor load
	Vdc	No Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP	uF MAX
68D20-12S03RNL	9-18	120	1455	3.3	4500	85	6600
68D20-12S05RNL	9-18	120	1893	5	4000	88	6600
68D20-12S12RNL	9-18	40	1897	12	1670	88	960
68D20-12S15RNL	9-18	40	1889	15	1330	88	470
68D20-12D12RNL	9-18	40	1871	±12	±833	89	470
68D20-12D15RNL	9-18	40	1873	±15	±667	89	330
68D20-24S03RNL	18-36	70	719	3.3	4500	86	6600
68D20-24S05RNL	18-36	70	936	5	4000	89	6600
68D20-24S12RNL	18-36	25	938	12	1670	89	960
68D20-24S15RNL	18-36	25	933	15	1330	89	470
68D20-24D12RNL	18-36	25	935	±12	±833	89	470
68D20-24D15RNL	18-36	25	926	±15	±667	90	330
68D20-48S03RNL	36-75	30	355	3.3	4500	87	6600
68D20-48S05RNL	36-75	30	473	5	4000	88	6600
68D20-48S12RNL	36-75	15	469	12	1670	89	330
68D20-48S15RNL	36-75	15	466	15	1330	89	330
68D20-48D12RNL	36-75	25	478	±12	±833	87	330
68D20-48D15RNL	36-75	25	473	±15	±667	88	220

Input Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Type				2:1		
Filter		LC Network				

Output Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Tolerance	Full load@Vin(nom.)			±2	%	
Short Circuit Protection	Hiccup, automatic Recovery					
Line Regulation				±0.5	%	
Load Regulation	Single Dual(Balance Load)			±0.5 ±1	%	
Cross Regulation	Dual(25% To 100% Load)			±5	%	
Ripple & Noise	Output:3-15V TYPES BW=DC To 20MHz			100	mVp-p	
Ripple & Noise	Output > 15V TYPES BW=DC To 20MHz			1% of Vout	mVp-p	
Transient response setting time	25% load step change		300		us	

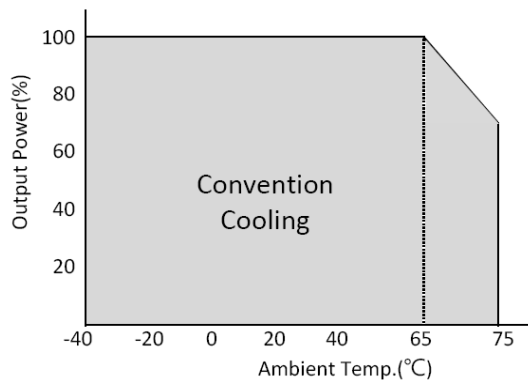


Wide Input Voltage Range 20Watt Dc-Dc Converter

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Voltage			1500		Vdc
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			330		KHz
Operating Temperature	With derating	-40		75	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Nickel coated copper with no-conductive base				
MTBF	MIL-HDBK-217F@25°C	340000			Hours
Weight			16.5		g
Dimensions		25.4x25.4x10.6			mm

Temperature Derating Graph

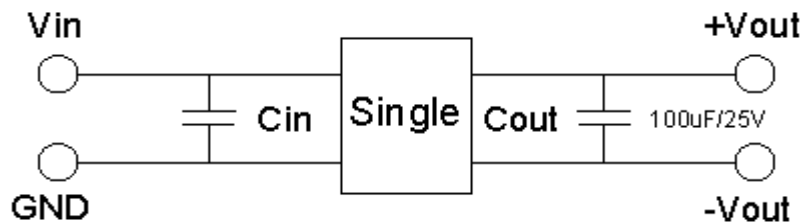


Part Number

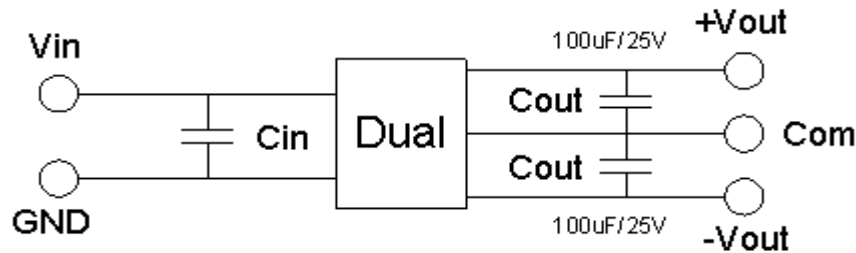
68D20 - 24 S 05 R NL
 A B C D E F

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

Recommended Test Circuit



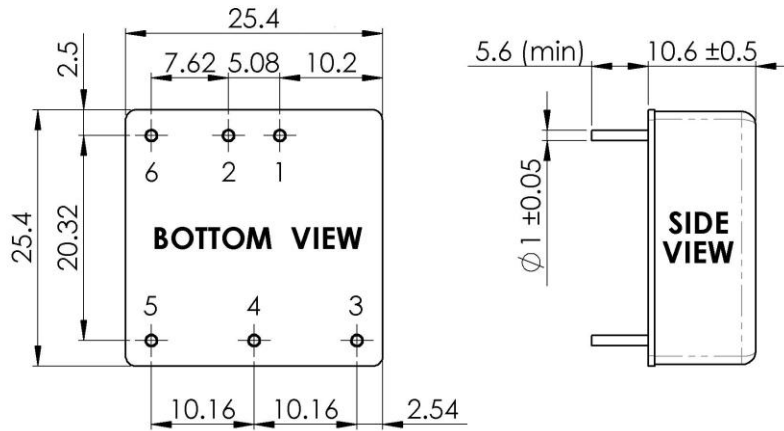
24V&48V: Cin 10uF, 100V



24V & 48V : Cin 10uF, 100V



Markings and Dimensions



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

PIN Assignment						
PIN	1	2	3	4	5	6
SINGLE	+Vin	-Vin	+Vout	Trim	-Vout	Remote On/Off
DUAL	+Vin	-Vin	+Vout	COM	-Vout	Remote On/Off