

DC/DC Converter

SHO1-P102-20D & SHO1-P202-20D

14 - 18VDC input voltage, non-isolated & regulate single output, Constant current output: 20 mA



FEATURES

- Low current ripple
- Input under-voltage protection
- Output short circuit, over-current Protection
- Operating temperature range: -20°C to +50°C

SHO1-P102-20D & SHO1-P202-20D are DC-DC products with non-isolated input and single output, constant current output: 20 mA, operating temperature of -20°C to +50°C, input under-voltage protection, output short circuit protection, over-voltage protection. Widely used in high voltage accumulation energy impulse capacitor, high voltage constant-current source fields.

Selection Guide

Certification	Part No.	Input Voltage (VDC)	Output Voltage(VDC)		Output Current (mA)	Efficiency (%Min./Typ.) @ Full Load
		Nominal (Range)	Nominal	Range		
--	SHO1-P102-20D	16	1000	0-1000	20	82/85
	SHO1-P202-20D	(14-18)	2000	0-2000	20	84/87

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Under-voltage Protection	Starting voltage	--	13	14	VDC
	Shutdown voltage	9	11	--	
Input Filter		Pi filter			
Hot Plug		Unavailable			

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Output current		18	20	22	mA	
Temperature Coefficient	Nominal output voltage & Full load, works after preheating for 30 minutes	--	--	±0.1	%/°C	
Time Coefficient		--	--	±0.1	%/hour	
Output Over-voltage Protection	Input voltage range	SHO1-P102-20D	1100	1250	--	VDC
		SHO1-P202-20D	2000	2150	--	
Short circuit Protection	Input voltage range	Continuous				

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Operating Temperature		-20	--	+50	°C	
Storage Temperature		-40	--	+71		
Pin Welding Resistance Temperature	Welding spot is 1.5mm away from the casing, 10 seconds	--	--	+300		
Storage Humidity	Non-condensing	5	--	95	%RH	
Switching Frequency	PWM mode	SHO1-P102-20D	--	100	--	KHz
		SHO1-P202-20D	--	70	--	
MTBF	MIL-HDBK-217F@25°C	1000	--	--	K hours	

Physical Specifications

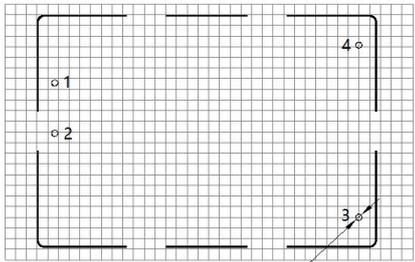
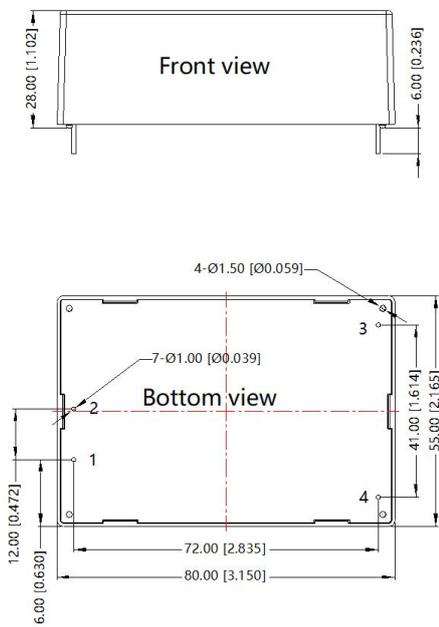
Casing Material	Black flame-retardant and heat-proof plastic (UL94 V-0)
Dimension	80.00*55.00*28.00 mm
Weight	140g(Typ.)
Cooling Method	Free air convection

DC/DC Converter

SHO1-P102-20D & SHO1-P202-20D

Horizontal Package Dimensions and Recommended Layout

THIRD ANGLE PROJECTION 



Note : Grid 2.54*2.54mm

Pin-Out	
Pin	Function
1	Vin
2	GND
3	H.V.
4	HGND

Note:
 Unit: mm[inch]
 Pin diameter tolerances: $\pm 0.10 [\pm 0.004]$
 General tolerances: $\pm 0.50 [\pm 0.020]$

Notes:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^{\circ}\text{C}$, humidity<75%RH with nominal input /output voltage and rated output load;
2. All index testing methods in this datasheet are based on Company's corporate standards;
3. We can provide product customization service, please contact our technicians directly for specific information;
4. Products are related to laws and regulations: see "Features";
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.