

SLD01-10BxxR2

SLD02-10BxxR2



DESCRIPTION:

1W, 2W 3KVAC Isolation Wide Input AC/DC Converters



The rated output power is 1W,2W with wide input voltage range, for both AC input and DC input application. High reliability, Low power consumption, low leakage current 0.1mA, High isolation. Product safe and reliable, Good EMC performance, EMC And meet the safety specifications of IEC/EN61000-4、CISPR22/EN55022、UL62368/EN662368/IEC62368. Widely used in industrial control and electrical instrumentation, smart home, which do not have high requirement on EMC.

The EMC external circuit must be added if the products need to be applied to EMC harsh environment.

FEATURES

ultra-small size,width is only1.5CM , plastic case	Universal input voltage range	Low Ripple & Noise, Output protection
Lower power consumption, no-load loss<0.05W	Built-in EMI filter circuit	RoHS compliant

SELECTION GUIDE

Part Number	Input Voltage		output		Efficiency(typ.) %	Ripple&noise (mv)
	VAC	VDC	Voltage (VDC)	current (mA)		
SLD01-10B05R2	85-305	80-400	5	200	68	150
SLD01-10B06R2	85-305	80-400	6	166	68	150
SLD01-10B09R2	85-305	80-400	9	111	70	150
SLD01-10B12R2	85-305	80-400	12	83	71	150
SLD01-10B15R2	85-305	80-400	15	67	71	150
SLD01-10B24R2	85-305	80-400	24	42	65	150
SLD02-10B05R2	85-305	80-400	5	400	70	150
SLD02-10B09R2	85-305	80-400	9	222	73	150
SLD02-10B12R2	85-305	80-400	12	167	75	150
SLD02-10B15R2	85-305	80-400	15	133	75	150
SLD02-10B24R2	85-305	80-400	24	83	77	150

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

INPUT CHARACTERISTICS

Input voltage	85~ 305VAC,80 ~ 400VDC
Input Frequency	47 ~ 440Hz
Input Current (Typ.)	55m A / 115VAC,34m A / 230VAC
Inrush Current (Typ.)	20 A/230 VAC
Recommended External Fuse	Fuse resistance : 10Ω/1W
Leakage Current (Typ.)	<0.1Ma at 265VAC/50Hz

OUTPUT CHARACTERISTICS

Voltage accuracy	±3.0% (±5.0% max)
Line regulation	±1.0%
Load regulation	±1.0%
Start rising time (Typ.)	20ms/230VAC 50ms/115VAC at full load
Output hold time (Typ.)	40ms/230VAC 15ms/115VAC at full load
Short circuit protection	Over-voltage,over-current,short circuit protection : Hiccup, continuous, self-recovery

TEMPERATURE CHARACTERISTICS

Operating temperature	—40 ~ +80 °C (≥ 50°C, Derating at 0.011W/°C)
Operating humidity	85% .RH max
Storage temperature	- 40 ~ +85, 10 ~ 95% RH
temperature coefficient	0.03%/ (0~ 50°C)
Vibration coefficient	10~500Hz,2G10min./1cycle, 60min.each along X,Y,Z axes

SAFETY & ELECTROMAGNETIC COMPATIBILITY (NOTES)

Safety standard	EN62368, IEC62368, UL62368
Isolated voltage	I/P-O/P:3000VAC
Isolation resistance	I/P-O/P>100M Ohms/500VDC 25°C 70% RH
Conduction and radiation	EN55011, EN55022 (CISPR22) CLASS B (refer to APPLICATION CIRCUIT)
Electrostatic discharge(ESD)	IEC/EN 61000-4-2 level 4 8kV/15kV (refer to APPLICATION CIRCUIT)
Rf radiation immunity (RF)	IEC/EN 61000-4-3 (refer to APPLICATION CIRCUIT)
EFT	IEC/EN 61000-4-4 level 3 2kV
Surge	IEC/EN 61000-4-5 level 3 1kV

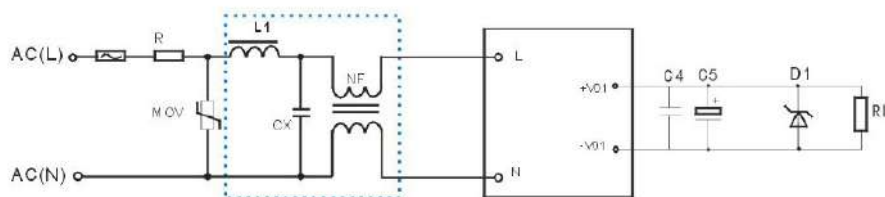
OTHERS

MTBF	200K hrs min. MIL-HDBK-217F(25)
SIZE	32.00*20.00*15.00mm

NOTES

- 1.The data in this manual are measured at TA = 25 ° C, humidity <75%, input nominal voltage (230Vac) and output rated load,except for special instructions.
- 2.Ripple & noise are measured in accordance with the link of the application circuit in this manual, using a 300mm twisted pair-wire and 20MHZ bandwidth
- 3.The power supply is considered a component which will be installed into a final equipment.The final equipment must be re-confirmed that it still meets EMC directives

TYPICAL APPLICATION CIRCUIT



Notes :

- 1.Output filtering capacitor C5 is a electrolytic capacitor, it is recommended to use high frequency and low impedance electrolytic capacitor.
For capacitance and current of capacitor please refer to manufacture' s datasheet. C4 is used to filter high-frequency noise
- 2.The dashed box contains EMC filters connected to meet higher EMC requirements, which can be omitted for general applications.

COMPONENT	FUSE	R	NF	MOV	CX	L1	C5	C4	D1
PN									
SLD01-10B05R2	FUSE: 10Ω/1W	NO CONNECTION	is Common mode inductance,ind uctance value 30mH, 0. 2A-0. 5A.	MOV is piezoresis tance ,Re commend value 14D471K	safe X capacitor, 104K/275 V	1mH/0. 5A	1000uF/10V	104K/50V (ceramic capacitor)	P6KE6.8A
SLD01-10B06R2							1000uF/10V		P6KE6.8A
SLD01-10B09R2							680uF/16V		P6KE16A
SLD01-10B12R2							680uF/16V		P6KE16A
SLD01-10B15R2							470uF/25V		P6KE20A
SLD01-10B24R2							220uF/35V		P6KE33A
SLD02-10B05R2							1000uF/10V		P6KE6.8A
SLD02-10B09R2							680uF/16V		P6KE16A
SLD02-10B12R2							680uF/16V		P6KE16A
SLD02-10B15R2							470uF/25V		P6KE20A
SLD02-10B24R2							220uF/35V		P6KE33A

SLD01-10BxxR2
SLD02-10BxxR2



MECHANICAL DIMENSIONS	PIN DESIGN										
DIP Front view dimensions: width 0.80, height 15.00. Top view dimensions: total width 27.94, total height 10.00, pin pitch 2.03, pin diameter 0.80, pin offset 2.03. Pin positions are labeled 1, 2, 3, and 4. UNITS: mm Pin length: ≥4.0mm; Pin diameter : 0.8mm; pin Tolerance:±0.1mm; Other Tolerance:±0.5mm	<table><tr><th>Pin</th><th>Single</th></tr><tr><td>1</td><td>L</td></tr><tr><td>2</td><td>N</td></tr><tr><td>3</td><td>+Vo</td></tr><tr><td>4</td><td>-Vo</td></tr></table>	Pin	Single	1	L	2	N	3	+Vo	4	-Vo
Pin	Single										
1	L										
2	N										
3	+Vo										
4	-Vo										