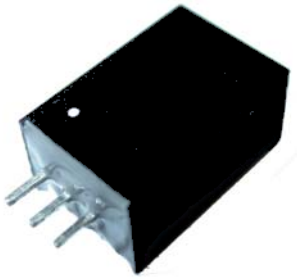
SCHMID-M

S01D-2A SERIES

Non-Isolated Single Output DC-DC Converter



FEATURES:

- 3PIN SIP Package
- Pin-out compatible with LM78XX Linears
- UL94V-0 Package Material
- Operating Temperature:-40℃ TO +85℃
- Efficiency up to 96%,Non isolated,no need for heatsinks
- Short circuit protection
- Wide input voltage ranges 4.75~36VDC

1 Year Warranty SCHMID-M RoHS SCHMID-M

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

Part Number	Input Range	Output Voltage	Output Current	Efficiency	
	Vdc	Vdc	mA	Min.Vin(%)	Max.Vin(%)
S01D-1R8-2A	4.75-36	1.8	2000	89	80
S01D-2R5-2A	4.75-36	2.5	2000	91	83
S01D-3R3-2A	4.75-36	3.3	2000	90	86
S01D-05-2A	6.5-36	5.0	2000	92	89
S01D-6R5-2A	9.0-36	6.5	2000	93	91
S01D-09-2A	12-36	9.0	2000	94	92
S01D-12-2A	15-36	12	2000	95	93
S01D-15-2A	18-36	15	2000	96	94

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Input Voltage Range	See table	4.75	24	36	V
Internal Input Filter	Capacitors		10		uF
No load input current	Vin=24V		15	20	mA

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			±2	±3	%
Short Circuit Protection	Indefinite, automatic recovery				
Line Regulation	Vin=min to max at full Load		±0.5		%
Load Regulation	10% To 100% F.L.		±0.5		%
Current Limit	Duty=40%		325		%
Ripple & Noise (without Output Capacitor)	100% F.L. BW=20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us
Capacitive load	ESR > 1m ohm		470	1000	uF

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Temperature Coefficient	-40℃~+85℃ ambient			0.015	%/℃
Switching Frequency			500		KHz
Operating Temperature	See Temperature Derating Graph	-40		85	℃
Storage Temperature		-55		125	℃
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Non-Conductive Black Plastic				
Weight			4.0		g
Dimensions		11.5x7.5x10.0			mm
MTBF(+25℃)	using MIL-HDBK 217F	1630x10^3			Hours
Derating	1.5%/K above +50℃				

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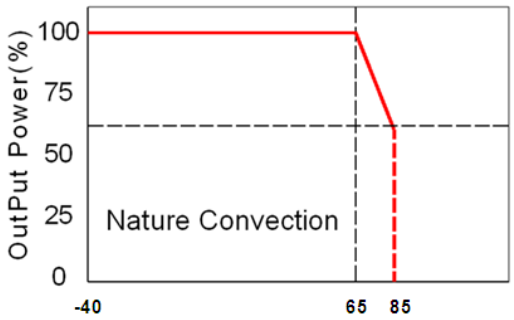
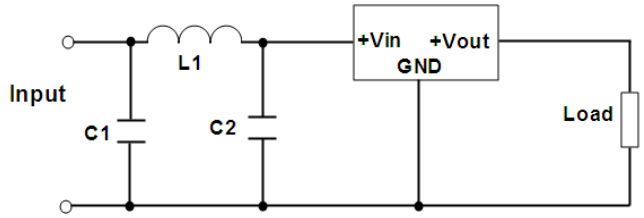
Temperature Derating Graph



Application Examples



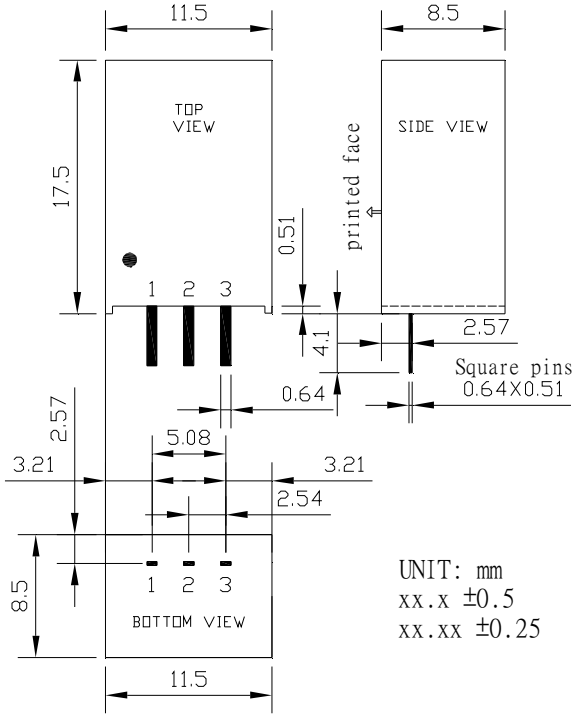
C1,C2=220uF/50V,ESR<0.1 ohm
L1=1uH

Part Number

S01D – 05 – 2A
A B C

A: Series
B: Output Voltage
C: Output Current

Markings and Dimensions



PIN Connection

PIN	1	2	3
SINGLE	+Vin	GND	+Vout