SAP-0505S1H



ISSUE DATE: 09.MAR,2021 Rev.2
1.0 W Single Output Non-Regulated DC/DC Converter



Note: This data sheet only for reference.

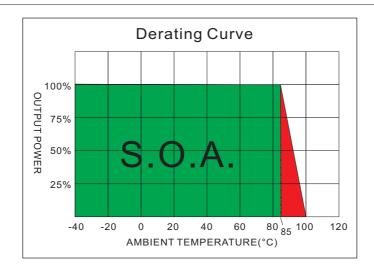
ALL SPECIFICATIONS ARE TYPICAL AT 25°C, NOMINAL INPUT AND FULL LOAD UNLESS OTHERWISE NOTED.

OUTPUT SPECIFICATIO	NS
Output Voltage	5 Vdc, ±3%
Output Current	200 mA, max.
Line Regulation	±1.3% / Per 1% Vin Change
Load Regulation	(From 20% to 100% Load) ±10%
Ripple&Noise (20 Mhz bandwidth)(1)	100mVpk-pk, max.
Short Circuit Protection	Continuous
Temperature Coefficient	±0.02%/°C
Capacitive Load(2)	100μF, max.
INPUT SPECIFICATIONS	5 Vdc. +10%
Input Voltage Range	0 v do; = 1070
Input Current(No-Load)	60mA, max.
Input Current(Full-Load)	270.27mA, typ.
Input Filter	Capacitors
Input Reflected Ripple Current(3)	20mApk-pk
	TION(C/A)
ABSOLUTE SPECIFICAT	u D
These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.	
Input Surge Voltage(100mS)	7 Vdc ,max.
Soldering Temperature (1.5mm from case 10sec max.)	260°C ,max.

PHYSICAL SPECIFICATION	DNS
Case Material Non-conductive Bla	ck Plastic(UL94V-0 rated)
Pin Material 0.5r	nm Alloy42 Solder-coated
Potting Material	Epoxy (UL94V-0 rated)
Weight	1.5g
Dimensions	0.46"x0.24"x0.40"
ENVIRONMENTAL SPECI	FICATIONS
Operating Temperature	-40°C ~ +85°C
Maximum Case Temperature	100°C
Storage Temperature	-40°C ~ +125°C
Cooling	Nature Convection
GENERAL SPECIFICATION	DNS
Efficiency	74%, min.
I/O Isolation Voltage(60sec)	3000 Vdc
I/O Isolation Resistance	1000 MΩ, min.
I/O Isolation Capacitance	60 pF, typ.
Switching Frequency	65kHz, typ.
Humidity	95% rel H
Reliability Calculated MTBF(MIL-HDBK-2	17 F) >1.121 Mhrs
Safety Standard (designed to meet)	IEC/EN 60950-1, 62368-1
	UL/cUL 60950-1, 62368-1

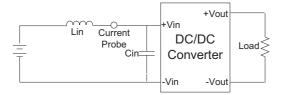
NOTE

- 1.Ripple/Noise measured with 20MHz bandwidth.
- 2. Tested by minimal Vin and constant resistive load.
- 3. Measured Input reflected ripple current with a simulated source inductance of 12 μ H and a source capacitor Cin(47 μ F, ESR<1.0 Ω at 100KHz).
- 4. Exceeding the absolute ratings of the unit could cause damage. It is not allowed for continuous operating.
- 5. Operation under no-load conditions will not damage these devices, however they may not meet all listed specifications.



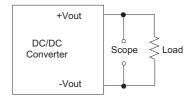
Input Reflected Ripple Current Test Step

Input reflected ripple current is measured through a source inductor Lin(12 μ H) and a source capacitor Cin(47 μ F, ESR<1.0 Ω at 100KHz) at nominal input and full load.

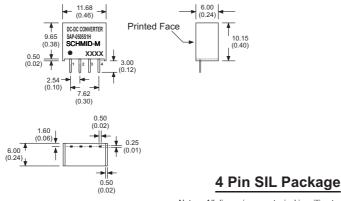


Output Ripple & Noise Measurement Test

The Scope measurement bandwidth is 20MHz.



MECHANICAL DIMENSION



Notes : All dimensions are typical in millimeters (inches).

1. Pin diameter: 0.5±0.05 (0.02±0.002)

2. Pin pitch and length tolerance: ±0.35 (±0.014)

3. Case Tolerance: ±0.5 (±0.02)

Pin	Connection
#	Single
1	-V Input
2	+V Input
3	-V Output
4	+V Output