FEATURES :

- Universal Input 85~305VAC
- High Efficiency Up To 70%
- Protection: Short Circuit / Over Load
- Ultra small size
- 3 Years Warranty
- ROHS Compliant

YUAN DEAN SCIENTIFIC

AC-DC Converter

GS1 SERIES

1Watt

3KVac Isolated

Single Output

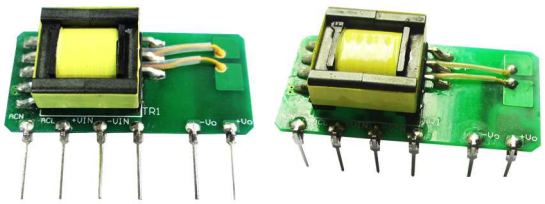
Open Frame

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

Part Number	Output Wattage	Output Voltage	Output Current	Efficiency	Max. Capacitive Load
	(W)	(VDC)	(mA)	(TYP %)	(μF)
GS1-S05(F)	1	5	200	66	600
GS1-S09(F)	1	9	111	67	470
GS1-S12(F)	1	12	83	69	220
GS1-S15(F)	1	15	67	70	180
GS1-S24(F)	1	24	42	68	120

Note:

add suffix"F"for 90°bending Products. For example: GS1-S05F, GS1-S12F



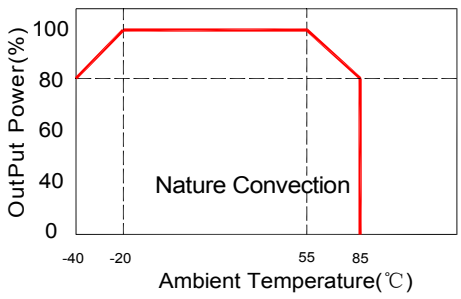
Input Specifications

Parameters	Conditions		Min	Typ	Max	Units
Rated Input Voltage	Vo,Io nom			100~277		Vac
Voltage Range	Vo, Io nom	AC in	85		305	Vac
		DC in	70		430	Vdc
Line frequency	Vi nom, Io nom		47		63	Hz
Input Current	Io nom	Vi:115VAC			0.06	A
		Vi:230VAC			0.03	A
Inrush Current	Io nom	Vi:115VAC		10		A
		Vi:230VAC		15		A

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Output Voltage Accuracy	Vi nom, Io nom			±5	%
Minimum Load	Vi nom	0			%
Line Regulation	Io nom, Vi min...Vi max		±1.5		%
Load Regulation	5%~100% Load		±2.5		%
No Load				0.5	W
Ripple & Noise	Vi nom, Io nom, BW=20MHz		50	120	mVp-p
Protection	Over Load	Above 110% rated output power			
		Protection type: Recovers automatically after fault condition is removed			
	Short circuit	Recovers automatically after fault condition is removed			

Temperature Derating Graph



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Rev:2 2018/09/11

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency	Vi nom, Io nom			60	KHz
Isolation Voltage	Input / Output		3KVac/ 5mA/5Secs		
Isolation Resistance	Input / Output,@500 Vdc	100			MΩ
Operating Temperature	Refer to Temperature Derating Graph	-40		+85	℃
Storage Temperature	Non Operational	-40		+105	℃
Relative Humidity	Vi nom, Io nom			85	% RH
Safety Standards	Design refer to UL60950-1,IEC60950-1				
EMI Conduction & Radiation	EN55032,CLASS B(See Fig. 1 for recommended circuit)				
EMS Immunity	EN61000 (See Fig. 1 for recommended circuit)				
Dimension	L35.0 x W11.0 x H18.0 mm				
Cooling	Free air convection				

Part Number

GS1 - S 05 (F)
A B C D

A : Series
B : Single Output
C : Output Voltage
D : Package

EMC Solution-Recommended Circuit

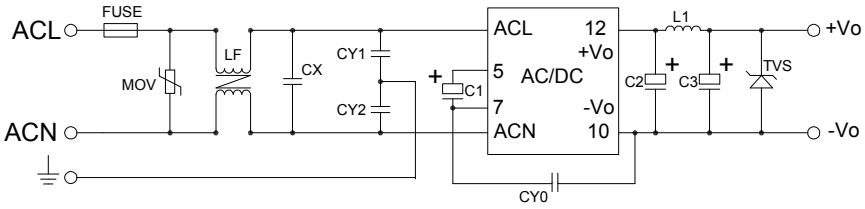
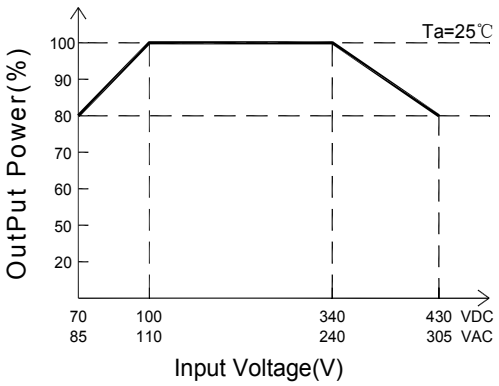


Fig.1

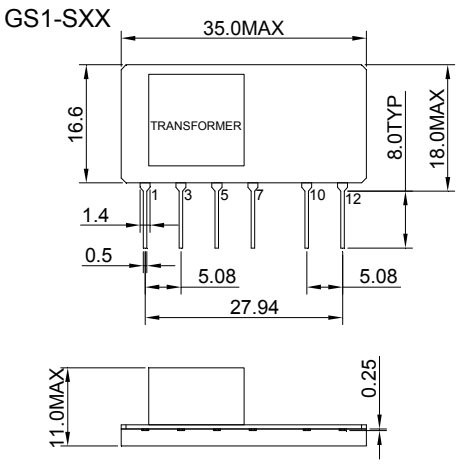
	5~24V		5~9V	12~24V
FUSE	250V/1A	C1	4.7uF/400V	
MOV	07D471K	CY0	1000pF/250V	
LF	UU9.8,30mH Min	C2	220uF/35V	68uF/35V
CX	0.1uF/275V	C3	68uF/35V	
CY1	470pF/250V	L1	2.2uH	
CY2				

	5V	9V	12V,15V	24V
TVS	SMBJ7.0A	SMBJ12A	SMBJ20A	SMBJ30A

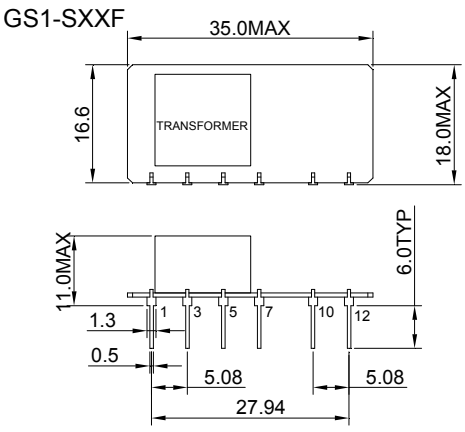
Input Voltage Derating Graph



Markings and dimensions



	Model
PIN	Single
1	ACN
3	ACL
5	+V(cap)
7	-V(cap)
10	-Vo
12	+Vo



UNIT:mm Unless otherwise specified,all tolerances are ±0.5

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