FEATURES :

- Universal Input 85~264VAC
- High Efficiency Up To 82%
- Protection: Short Circuit / Over Load
- Ultra small size
- 3 Years Warranty
- ROHS Compliant

YUAN DEAN SCIENTIFIC

AC-DC Converter

GS5 SERIES

5Watt

3KVac Isolated

Single Output

Open Frame

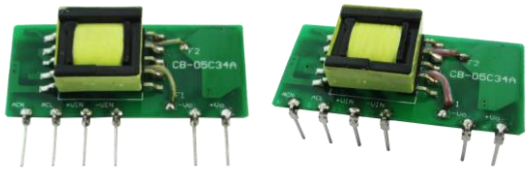
Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Wattage	Output Voltage	Output Current	Efficiency	Max. Capacitive Load
	(W)	(VDC)	(mA)	(TYP %)	(μF)
GS5-S03(F)	3.3	3.3	1000	67	2200
GS5-S05(F)	5	5	1000	74	1500
GS5-S09(F)	5	9	560	78	680
GS5-S12(F)	5	12	420	79	470
GS5-S15(F)	5	15	340	80	330
GS5-S24(F)	5	24	210	82	100

Note:
add suffix"F"for 90°bending Products. For example:GS5-S05F,GS5-S12F

Input Specifications

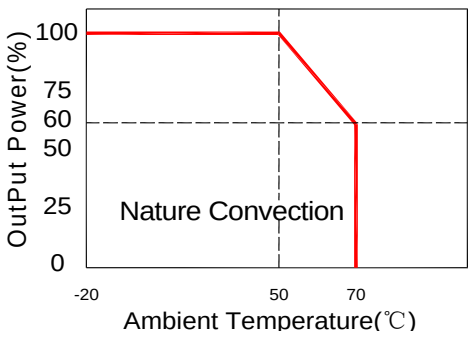
Parameters	Conditions		Min	Typ	Max	Units
Rated Input Voltage	Vo,Io nom			100~240		Vac
Voltage Range	Vo, Io nom	AC in	85		264	Vac
		DC in	100		400	Vdc
Line frequency	Vi nom, Io nom		47		63	Hz
Input Current	Io nom	Vi:115VAC			0.15	A
		Vi:230VAC			0.10	A
Inrush Current	Io nom	Vi:115VAC		5		A
		Vi:230VAC		10		A



Output Specifications

Parameters	Conditions		Min	Typ	Max	Units
Output Voltage Accuracy	Vi nom, Io nom	3.3V		±2	±3	%
		5~24V		±1	±2	
Minimum Load	Vi nom		0			%
Line Regulation	Io nom, Vi min...Vi max			±0.1	±0.5	%
Load Regulation	5%~100% Load			±1	±1.5	%
No Load					0.5	W
Ripple & Noise	Vi nom, Io nom, BW=20MHz(3.3-5V)			50	150	mVp-p
Ripple & Noise	Vi nom, Io nom, BW=20MHz(9-24V)			80	150	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



www.yds.com.tw
TEL：886-6-3842899 FAX：886-6-3843288
E-MAIL：ydsweb@yds.com.tw
Rev:1 2018/04/23

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency	Vi nom, Io nom		100		KHz
Isolation Voltage	Input / Output		3KVac/ 5mA/5Secs		
Isolation Resistance	Input / Output,@500 Vdc	100			MΩ
Operating Temperature	Refer to Temperature Derating Graph	-20		+70	℃
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	L42.0 x W13.65 x H20.0 mm				
Cooling	Free air convection				

Part Number

GS5 - S 05 (F)
A B C D

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

EMC Solution-Recommended Circuit

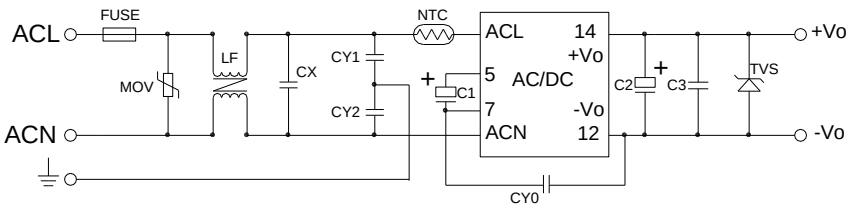
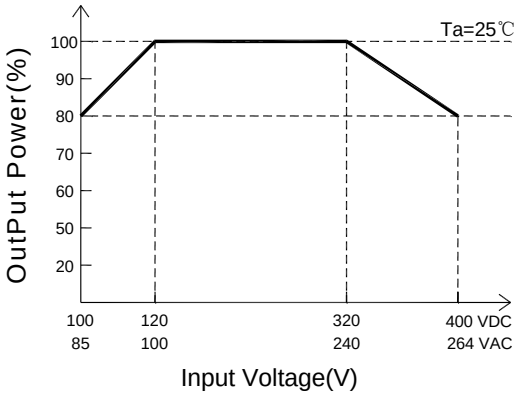


Fig.1

	3.3~24V		3.3~9V	12~24V
FUSE	250V/1A	C1	10uF/400V	
MOV	14D561K	CY0	1000pF/250V	
LF	UU9.8,30mH Min	C2	220uF/35V	150uF/35V
CX	0.1uF/275V	C3	0.1uF/50V	
CY1	470pF/250V			
CY2				
NTC	9D-5			

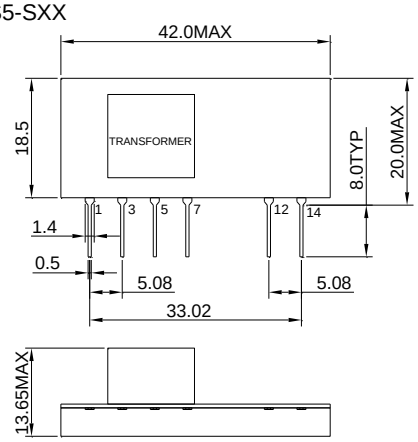
	3.3~5V	9V	12V,15V	24V
TVS	SMBJ7.0A	SMBJ12A	SMBJ20A	SMBJ30A

Input Voltage Derating Graph



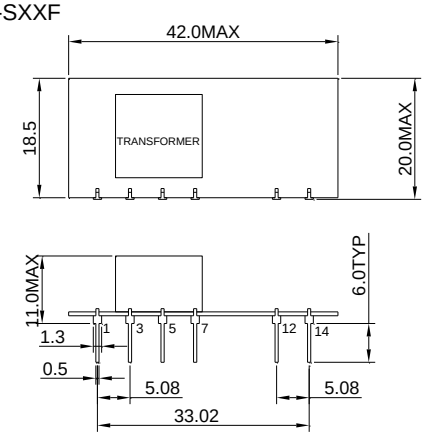
Markings and dimensions

GS5-SXX



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

GS5-SXXF



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

www.yds.com.tw
TEL：886-6-3842899 FAX：886-6-3843288
E-MAIL：ydsweb@yds.com.tw
Rev:1 2018/04/23