

FEATURES :

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

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	%
	Io nom	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			

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AC-DC Converter

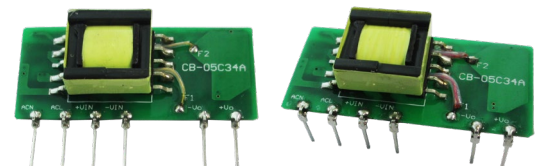
GS5 SERIES

5Watt

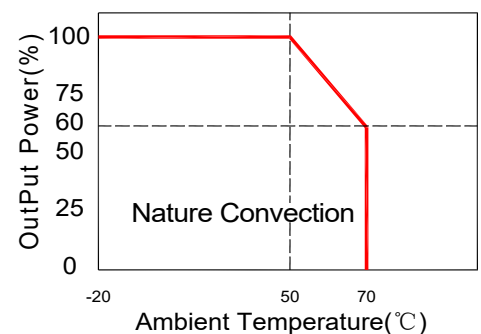
3KVac Isolated

Single Output

Open Frame



Temperature Derating Graph



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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	°C
Storage Temperature	Non Operational	-40		+105	°C
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

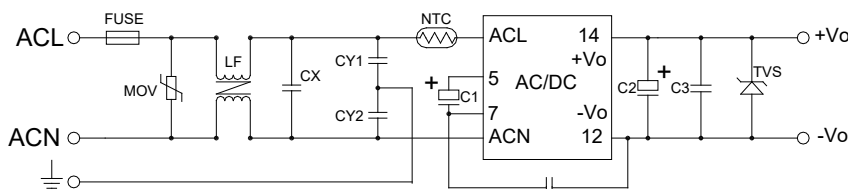
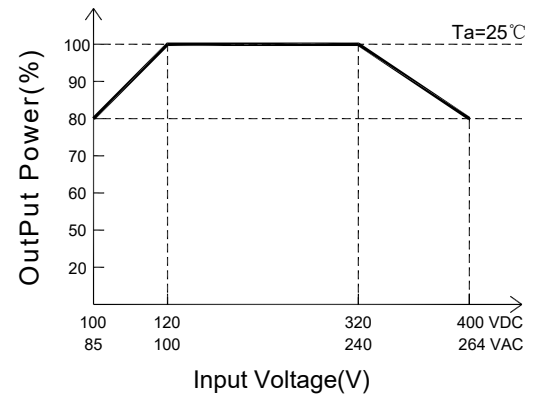


Fig.1

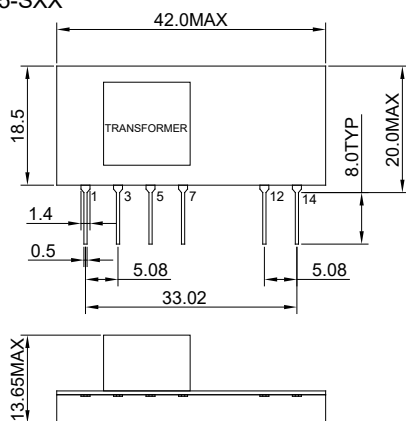
	3.3~24V		3.3~9V	12~24V
FUSE	250V/1A	C1	10uF/400V	
MOV	14D561K	CY0	1000pF/250V	
LF	UU9.8,30mH Min	C2	220uF/35V	150uF/35V
CX	0.1uF/275V	C3	0.1uF/50V	
CY1	470pF/250V			
CY2				
NTC	9D-5			
	3.3~5V	9V	12V,15V	24V
TVS	SMBJ7.0A	SMBJ12A	SMBJ20A	SMBJ30A

Input Voltage Derating Graph



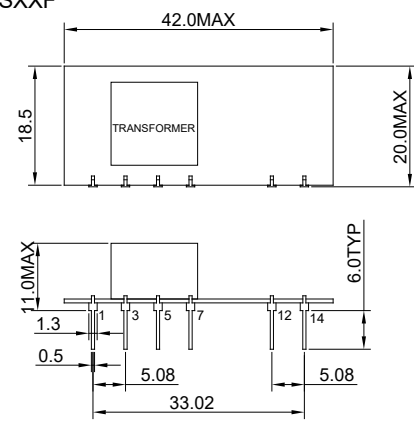
Markings and Dimensions

GS5-SXX



PIN	Model
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