

DC-DC Astra

AS1N-xxDxxGH3 series

AS1N-xxSxxGH3 series

3000Vdc Isolation Single & Dual Output 1 Watt Dc-Dc Converter



## FEATURES:

7PIN SIP Package

High Efficiency up to 85%

Unregulated Output Types

Recognized By UL 60950-1

Internal SMD Construction No External Component Required

Operating Temperature:-40°C TO +85°C Industry Standard Pinout

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified				
Part Number	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP	
AS1N-XXS03H3	3.3	303	70	H
AS1N-XXS05H3	5	200	70	H
AS1N-XXS09H3	9	112	75	H
AS1N-XXS12H3	12	84	78	H
AS1N-XXS15H3	15	67	80	H
AS1N-XXS24H3	24	42	82	H
AS1N-XXD03H3	±3.3	±150	70	H
AS1N-XXD05H3	±5	±100	70	H
AS1N-XXD09H3	±9	±56	75	H
AS1N-XXD12H3	±12	±42	78	H
AS1N-XXD15H3	±15	±34	80	H
AS1N-XXD24H3	±24	±21	82	H
AS1N-XXS05G3	5	200	70	G
AS1N-XXS09G3	9	112	75	G
AS1N-XXS12G3	12	84	78	G
AS1N-XXS15G3	15	67	80	G
AS1N-XXS24G3	24	42	82	G
AS1N-XXD05G3	±5	±100	70	G
AS1N-XXD09G3	±9	±56	75	G
AS1N-XXD12G3	±12	±42	78	G
AS1N-XXD15G3	±15	±34	80	G
AS1N-XXD24G3	±24	±21	82	G

Note:1."XX" Is Input Voltage :03=3.3Vdc 05=5Vdc, 09=9Vdc 12=12Vdc,15=15Vdc,24=24Vdc,48=48Vdc.

2. Over 48Vdc input voltage, using the 2nd package.

3.The input voltage increases, there will be an increase in efficiency.

Input Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,lo Nom			±5	%
Filter	Capacitor				

Output Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V,5V (10% To 100% F.L)			15	%
Load Regulation	9V,12V,15V,24V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

ООО Компания "Элемент"

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[www.astra-power.ru](http://www.astra-power.ru)

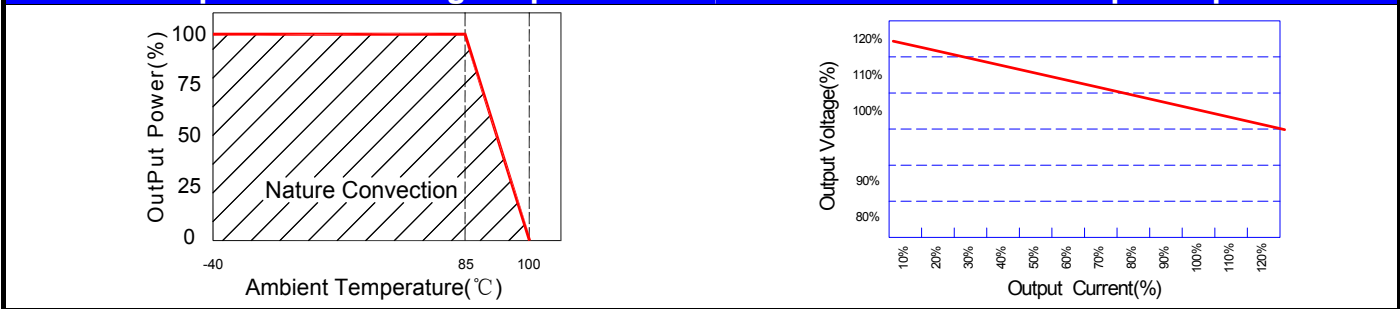
тел. (383)233-77-25, 233-77-26

моб.тел. 8-913-95-95-400

**General Specifications**

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load,nominal input		100		KHz
Operation Temperature		-40		+85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight	Package1 or Package2		2.1 or 2.7		g
Dimensions	Package H		19.5x6.0x10.0		mm
Dimensions	Package G		19.5x7.1x10.0		mm

**Temperature Derating Graph**      **Tolerance Envelope Graph**



**Recommended Test Circuit**      **Part Number**

**Single**

3.3V:Cin 4.7uF,25V 3.3V:Cout 22uF,25V  
 5V:Cin 4.7uF,25V 5V:Cout 10uF,25V  
 9V:Cin 4.7uF,25V 9V:Cout 4.7uF,25V  
 12V:Cin 2.2uF,25V 12V:Cout 2.2uF,25V  
 15V:Cin 1uF,50V 15V:Cout 1uF,50V  
 24V:Cin 1uF,50V 24V:Cout 1uF,50V  
 48V:Cin 1uF,100V

**Dual**

3.3V:Cin 4.7uF,25V 3.3V:Cout 22uF,25V  
 5V:Cin 4.7uF,25V 5V:Cout 10uF,25V  
 9V:Cin 4.7uF,25V 9V:Cout 4.7uF,25V  
 12V:Cin 2.2uF,25V 12V:Cout 2.2uF,25V  
 15V:Cin 1uF,50V 15V:Cout 1uF,50V  
 24V:Cin 1uF,50V 24V:Cout 1uF,50V  
 48V:Cin 1uF,100V

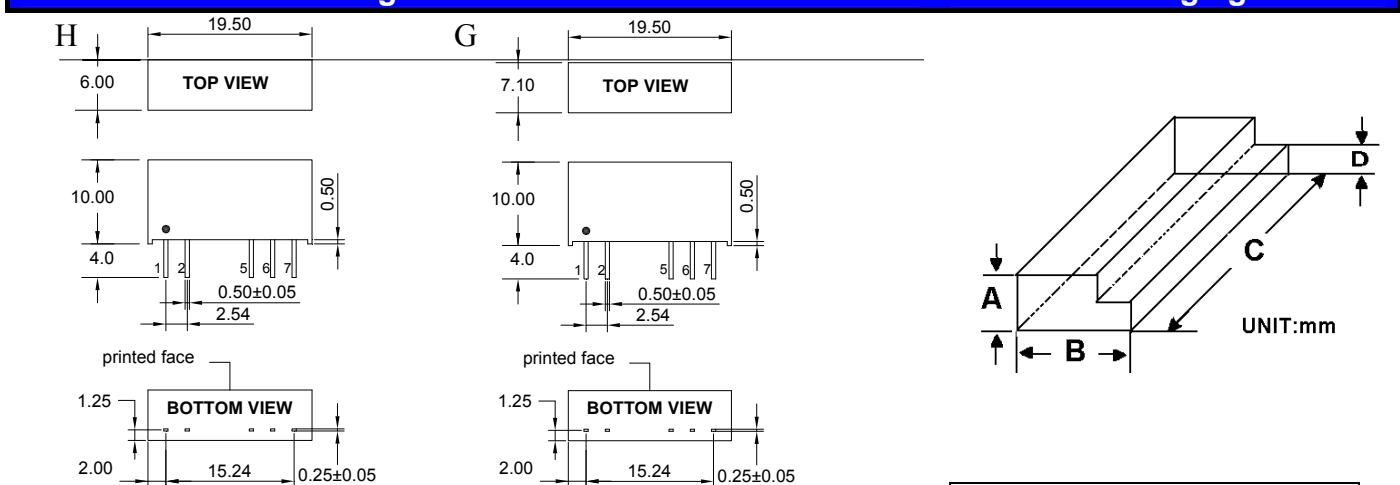
**Part Number**

AS1N - 05 D 05 G 3

1 2 3 4 5 6

Com 1:series  
 2:Input Voltage  
 3:(D) Dual (S) Single Output  
 4:Output voltage  
 5:Case G; H  
 6:3000Vdc Isolation

**Markings and dimensions**      **Packaging**



UNIT:mm Unless otherwise specified,all tolerances are ±0.25

PIN Connection					
PIN	1	2	5	6	7
Single	+Vin	-Vin	-Vout	No Pin	+Vout
Dual	+Vin	-Vin	-Vout	Com	+Vout