

DC-DC Astra AS1-xxSxxABDF series



1000Vdc Isolation Single Output 1 Watt Dc-Dc Converter

FEATURES:

4 PIN SIP and 8 PIN DIL Package.

High Efficiency up to 85%.

Unregulated Output Types.

Recognized By UL 60950-1

Internal SMD Construction

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	Part Number	Output Voltage	Output Current	Efficiency	Package Style
	Vdc	mA	%TYP			Vdc	mA	%TYP	
AS1-XXS03A	3,3	303	70	A	AS1-XXS03D	3,3	303	70	D
AS1-XXS05A	5	200	70	A	AS1-XXS05D	5	200	70	D
AS1-XXS09A	9	110	75	A	AS1-XXS09D	9	110	75	D
AS1-XXS12A	12	84	78	A	AS1-XXS12D	12	84	78	D
AS1-XXS15A	15	67	80	A	AS1-XXS15D	15	67	80	D
AS1-XXS24A	24	42	82	A	AS1-XXS24D	24	42	82	D
AS1-XXS03B	3.3	303	70	B	AS1-XXS03F	3.3	303	70	F
AS1-XXS05B	5	200	70	B	AS1-XXS05F	5	200	70	F
AS1-XXS09 B	9	110	75	B	AS1-XXS09F	9	110	75	F
AS1-XXS12B	12	84	78	B	AS1-XXS12F	12	84	78	F
AS1-XXS15B	15	67	80	B	AS1-XXS15F	15	67	80	F
AS1-XXS24B	24	42	82	B	AS1-XXS24F	24	42	82	F

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

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

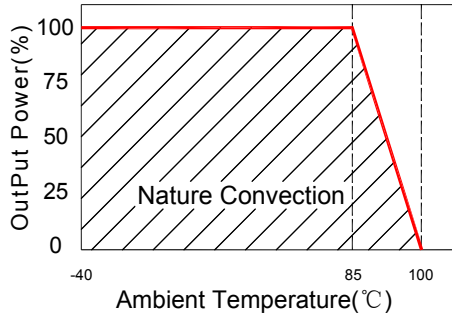
Input Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Voltage Tolerance	Vo, Io Nom			±10	%	
Filter	Capacitor					

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	

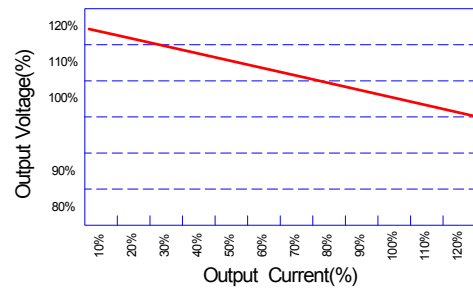
General Specifications						
Parameters	Conditions	Min	Typ	Max	Units	
Isolation Resistance	500Vdc	1000			MΩ	
Switching Frequency	Full load, nominal input		100		KHz	
Operating Temperature		-40		+85	°C	
Humidity	Non Condensing			95	%	
Cooling	Free air Convection					
Case material	DAP					
MTBF	MIL-HDBK-217F@25°C	3500000			Hours	
Weight	Package 1/2/3/4		1.5/1.9/1.5/2.7		g	
Dimensions	Package A		11.50x6.00x10.00		mm	
Dimensions	Package B		11.50x7.50x10.00		mm	
Dimensions	Package D		12.70x10.16x6.80		mm	
Dimensions	Package F		12.70x12.70x9.50		mm	

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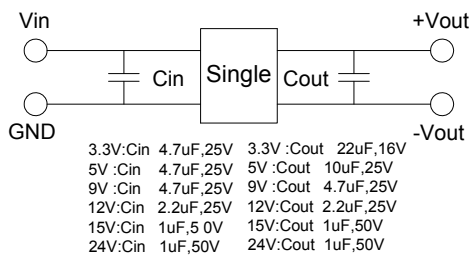
Temperature Derating Graph



Tolerance Envelope Graph



Recommended Test Circuit

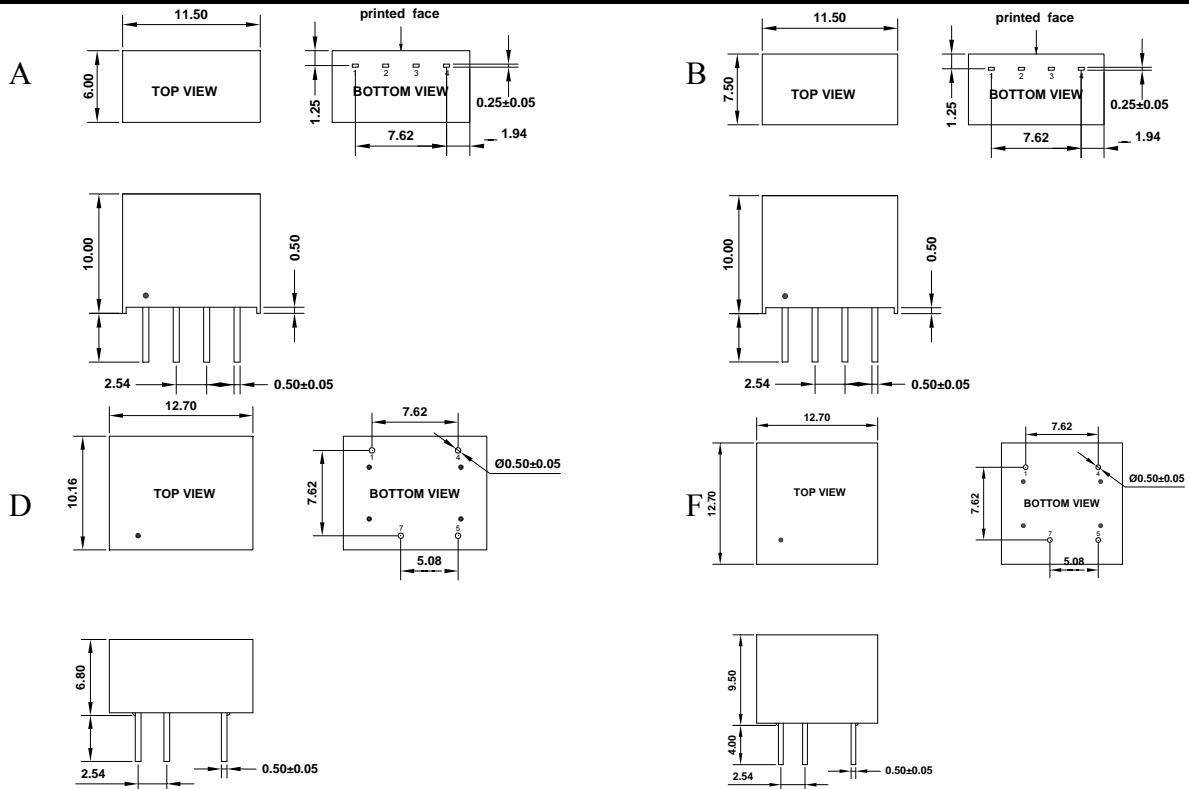


Part Number

AS1 - 05 S 05 A B D F
 1 2 3 4 5 6 7 8

1: Series
 2: Input Voltage
 3: Single Output
 4: Output voltage
 5: Case A 11.50x6.00x10.00
 6: Case B 11.50x7.50x10.00
 7: Case D 12.70x10.16x6.80
 8: Case F 12.70x12.70x9.50

Markings and dimensions



PIN Connection

PIN	1	2	3	4	5	7
4IN	-Vin	+Vin	-Vout	+Vout		
8IN	-Vin			+Vin	+Vout	-Vout