

**FEATURES:**

Small Footprint

22PIN SMD Package

High Efficiency up to 80%

Recognized By UL 60950-1

Unregulated Output Types High Power Density Industry Standard Pinout

Operating Temperature:-40°C TO +85°C No External Component Required

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	
AS1-xxS03X3	3.3	303	65	X
AS1-xxS05X3	5	200	70	X
AS1-xxS09X3	9	112	75	X
AS1-xxS12Y3	12	84	78	Y
AS1-xxS15Y3	15	67	80	Y
AS1-xxD03X3	±3.3	±150	65	X
AS1-xxD05X3	±5	±100	70	X
AS1-xxD09X3	±9	±56	75	X
AS1-xxD12Y3	±12	±42	78	Y
AS1-xxD15Y3	±15	±34	80	Y

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

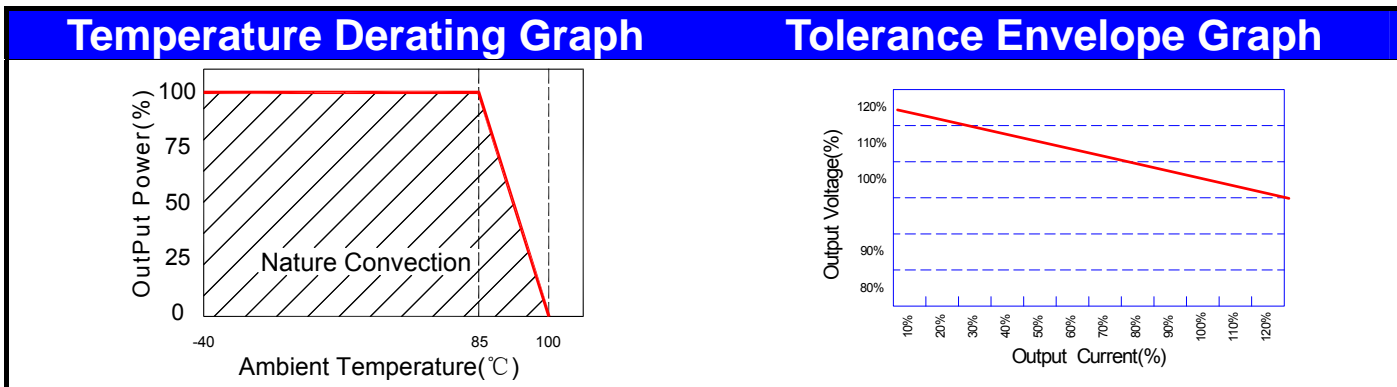
2.Over 12Vdc,15Vdc input voltage, using the Y package.

3.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 (10% To 100% F.L)		15		%
Load Regulation	5V, 9V (10% To 100% F.L)			12&8.0	%
Load Regulation	12V,15V (10% To 100% F.L.)			8.5&7.0	%
Ripple & Noise	BW=DC To 20MHZ			75	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	Package1 or Package2		1.8		g
Dimensions	Package X		15.24x8.0x7.30		mm
Dimensions	Package Y		15.24x8.0x8.50		mm



#### Recommended Test Circuit

**Single**

3.3V: Cin 4.7uF, 25V 3.3V: Cout 22uF, 16V  
 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

**Dual**

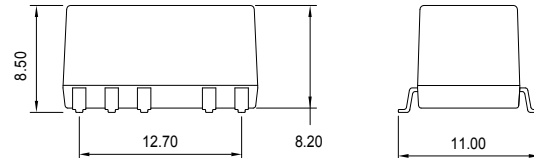
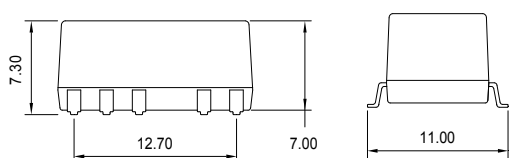
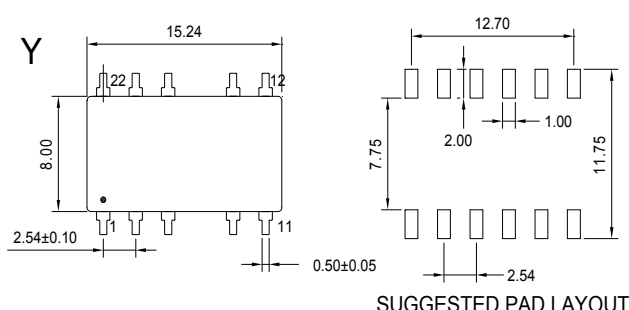
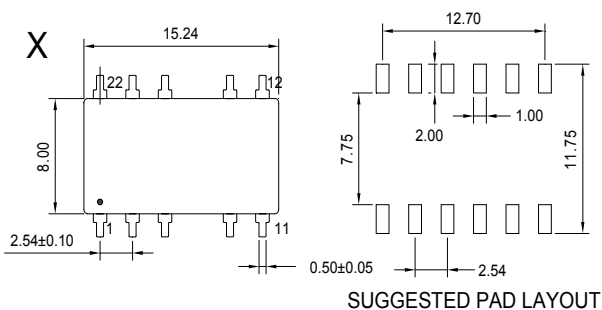
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 9V: Cin 4.7uF, 25V 9V: Cout 4.7uF, 25V  
 12V: Cin 2.2uF, 25V 12V: Cout 2.2uF, 25V  
 15V: Cin 1uF, 50V 15V: Cout 1uF, 50V

#### Part Number

**AS1-xx S 03 X Y 3**  
 1 2 3 4 5 6 7

1: Series  
 2: Input Voltage  
 3: (D) Dual (S) Single Output  
 4: Output voltage  
 5: Case X 15.24x8.0x7.30  
 6: Case Y 15.24x8.0x8.50  
 7: 3000Vdc Isolation

### Markings and Dimensions



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

### PIN Connection

PIN	1	3	5	9	11	12	14	18	20	22
Single	-Vin	+Vin	NC	-Vout	NC	NC	+Vout	NC	NC	NC
Dual	-Vin	+Vin	NC	Com	-Vout	NC	+Vout	NC	NC	NC