

Features

- ★ Small Footprint
- ★ In-Out Isolation Voltage 1000 VDC
- ★ 10 PIN SIP Package
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflaming retarding package
- ★ MTBF>1million hours(25℃)

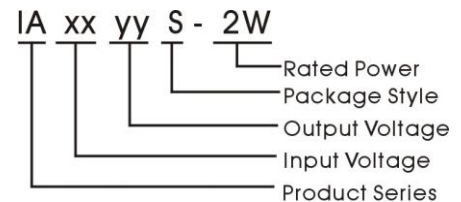


Applications

The IA_S-2W Series are specially designed for applications where a group of polar power supplies are isolated from the input power supply in a distributed power supply system on a circuit board.

These products apply to where:

- 1) 1000 VDC input and output isolation;
- 2) Input voltage variation $\leq \pm 5\%$;
- 3) Regulated and low ripple noise is not required.



Model Detail List Specification

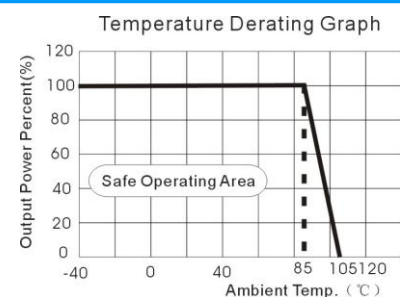
Model Number	Input Voltage range (nominal voltage)	Output Voltage	Output Current (mA)		Input Current Full load.(mA)		Efficiency	Max. Capacitive Load(μF)
			Min.	Max.	Max.	No.		
IA0505S-2W	4.75~5.25VDC (5 VDC)	±5.0V	±20	±200mA	294	36	68%	200μF
IA0509S-2W		±9.0V	±10	±100mA	264		68%	
IA0512S-2W		±12.0V	±8	±83mA	276		72%	
IA0515S-2W		±15.0V	±7	±67mA	287		70%	
IA1205S-2W	11.4~12.6VDC (12 VDC)	±5.0V	±20	±200mA	122	28	68%	
IA1209S-2W		±9.0V	±10	±100mA	107		70%	
IA1212S-2W		±12.0V	±8	±83mA	115		72%	
IA1215S-2W		±15.0V	±7	±67mA	111		75%	
IA2405S-2W	22.8~25.2VDC (24 VDC)	±5.0V	±20	±200mA	61	22	68%	
IA2409S-2W		±9.0V	±10	±100mA	53		70%	
IA2412S-2W		±12.0V	±8	±83mA	55		75%	
IA2415S-2W		±15.0V	±7	±67mA	53		78%	

Input Over-voltage Protection Circuit

The simplest device for input over-voltage protection is a linear voltage regulator with overheat protection that is connected to the input end in series.

When the environment temperature is higher than 85℃, the product output power should be less than 60% of the rated power. No parallel connection or plug and play. Use dual output simultaneously, for bid opening output pin (0V) to use as single output.

Temperature Derating Graph



Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.2		2	W
Line Voltage Regulation	For Vin change of $\pm 1\%$			± 1.2	%
Load regulation	10% to 100% load		5V output	0.01	
			12V output	0.01	
			15V output	0.01	
			24V output	0.01	
Ripple	20MHz Bandwidth		10		mVp-p
Noise			20		
Temperature Drift	100% full load			± 0.03	%/°C
Input Filter		C Filter			

Environmental Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load			25		°C
Operating Temperature		-40		85	
Storage Temperature	Power derating (above 85°C)	-55		125	
Soldering Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

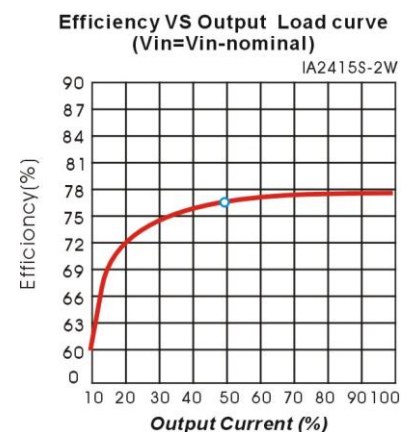
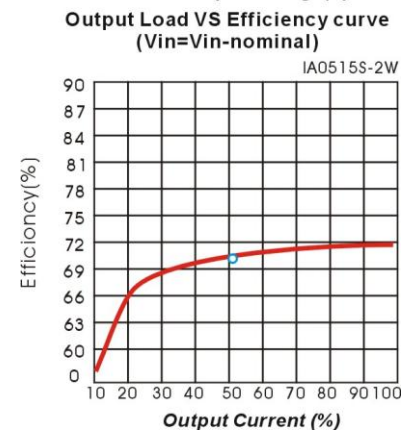
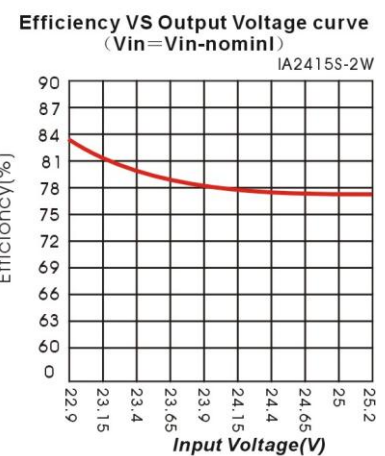
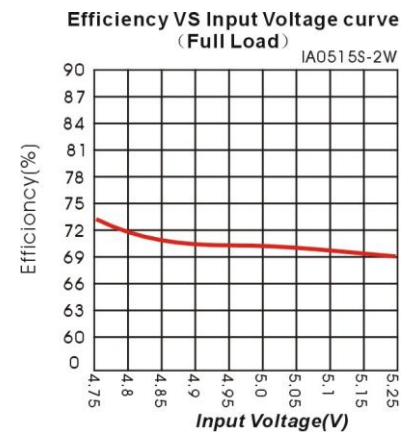
Common Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Tested for 1 minute and leakage current less than 1 mA	1000			VDC
Switching Frequency	Full load, nominal input		100		KHz
MTBF	MIL-HDBK-217F@25°C	3500			K hours
Isolation Resistance	Test at 500VDC	1000			MΩ
Isolation Capacitance			350		PF
Weight			3.5		g

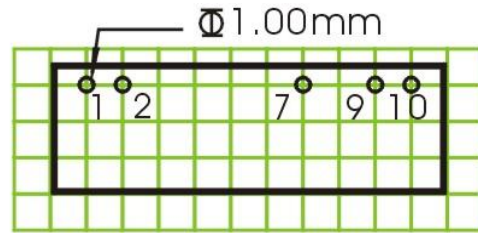
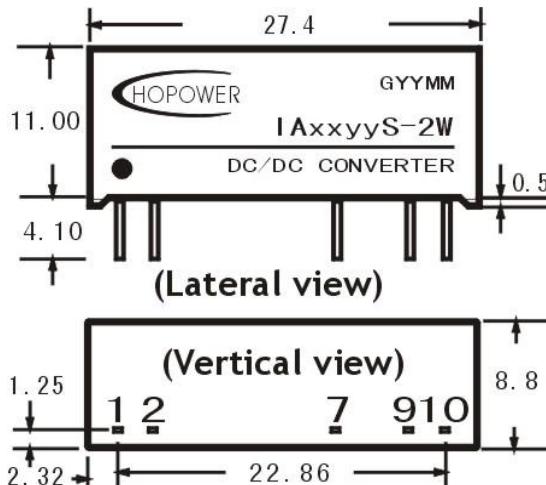
Input Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Input Max. voltage	5 VDC Input (4.75~5.25V)			6	VDC
	12 VDC Input (11.4~12.6V)			13	
	24 VDC Input (22.8~25.2V)			26	
Input surge voltage (1 sec. Max.)	5 VDC Input (4.75~5.25V)			10	
	12 VDC Input (11.4~12.6V)			20	
	24 VDC Input (22.8~25.2V)			32	

Product typical Curve



Mechanical Dimensions & Recommended Footprint



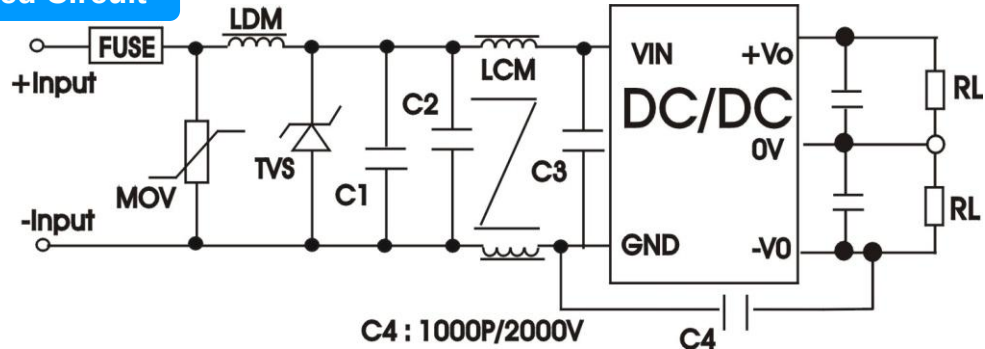
Note: Grid 2.54*2.54mm.

Unit: mm

General tolerances : 0.20mm

Package	V _{in}	GND	-V _o	0V	+V _o
IAS	1	2	9	10	7

EMC Recommended Circuit



EMC Module Application Circuit

