

Features

- ★ Continuous Short Circuit Protection
- ★ 7 PIN SIP Package
- ★ In-Out Isolation Voltage 1000 VDC
- ★ MTBF>1million hours(25℃)
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflaming retarding package
- ★ Low Ripple and good EMC features

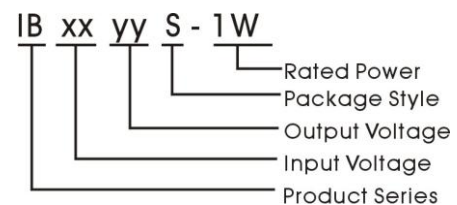


Applications

The IB_S-1W Series are specially designed for applications where a single power supply is highly 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.		
IB0505S-1W	4.75~5.25VDC (5 VDC)	5.0V	20	200	277	38	72%	200
IB0509S-1W		9.0V	11	111	273		73%	
IB0512S-1W		12.0V	8	83	269		74%	
IB0515S-1W		15.0V	7	67	268		75%	
IB1205S-1W	11.4~12.6VDC (12 VDC)	5.0V	20	200	114	32	73%	
IB1209S-1W		9.0V	11	111	109		76%	
IB1212S-1W		12.0V	8	83	107		77%	
IB1215S-1W		15.0V	7	67	108		77%	
IB1505S-1W	14.25~15.75V DC (15 VDC)	5.0V	20	200	90	27	74%	
IB1509S-1W		9.0V	11	111	87		76%	
IB1512S-1W		12.0V	8	83	86		77%	
IB1515S-1W		15.0V	7	67	87		77%	
IB2405S-1W	22.8~25.2VDC (24 VDC)	5.0V	20	200	55	23	75%	
IB2409S-1W		9.0V	11	111	54		77%	
IB2412S-1W		12.0V	8	83	53		78%	
IB2415S-1W		15.0V	7	67	54		77%	

Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.1		1	W
Line Voltage Regulation	For Vin change of $\pm 5\%$			± 0.25	%
Load regulation	10% to 100% load		0.01	0.02	
			0.01	0.02	
			0.01	0.02	
Ripple	20MHz	Output voltage $\leq 12V$		10	mVp-p
Noise	Bandwidth	others		20	
Temperature Drift	100% full load			± 0.03	%/°C
Short Circuit Protection		Continuous, automatic recovery			
Input Filter		C Filter			

Environmental Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load			20	125	°C
Operating Temperature		-45		+85	
Storage Temperature	Power derating (above 85°C)	-55		+125	
Soldering Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

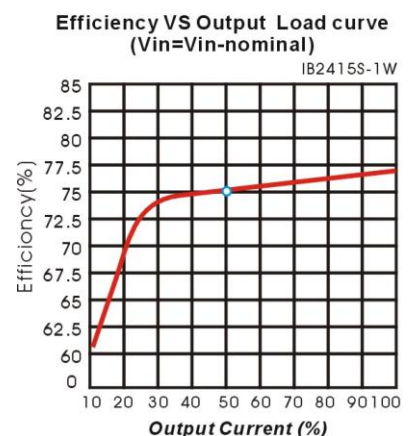
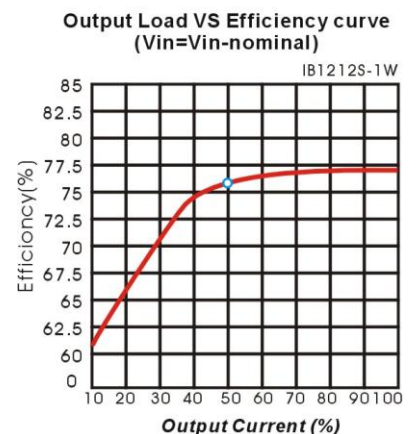
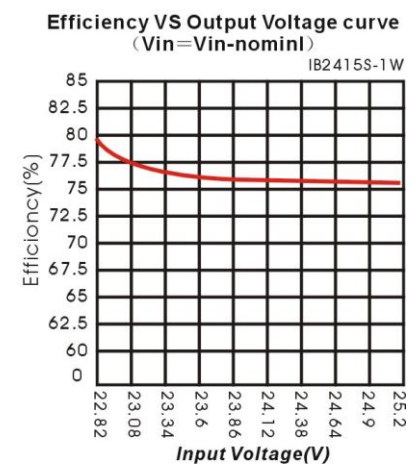
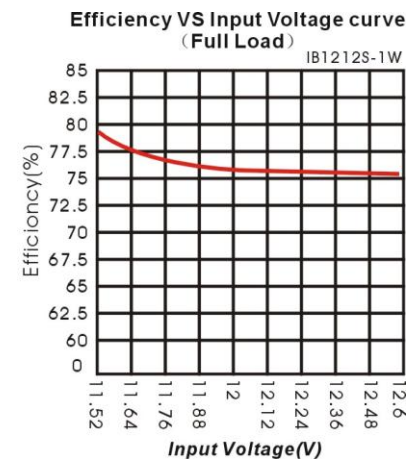
Common Specifications

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	300	KHz
MTBF	MIL-HDBK-217F@25°C	1000			K hours
Isolation Resistance	Test at 500VDC	1000			MΩ
Isolation Capacitance			300		PF
Weight			2.5		g

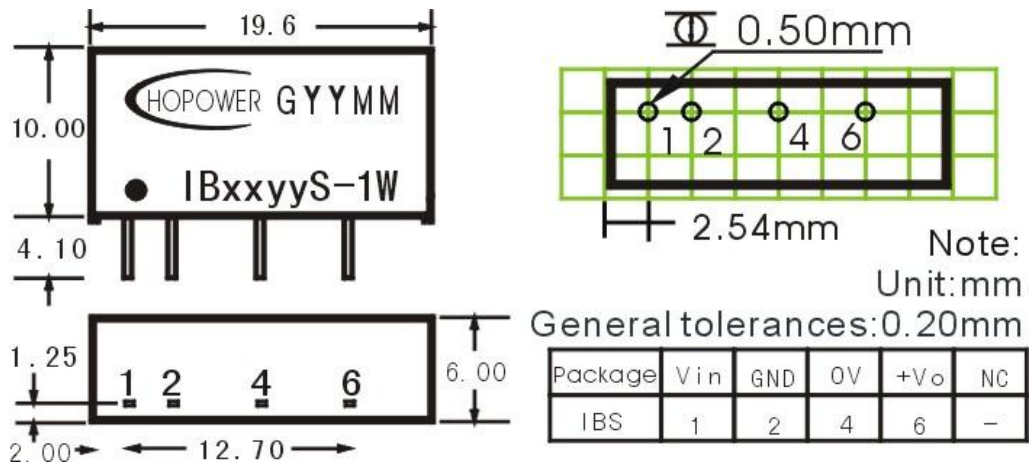
Input Specifications

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	
	15 VDC Input (14.25~15.75V)			16	
	24 VDC Input (22.8~25.2V)			28	
Input surge voltage (1 sec. Max.)	5 VDC Input (4.75~5.25V)			10	VDC
	12 VDC Input (11.4~12.6V)			14	
	15 VDC Input (14.25~15.75V)			18	
	24 VDC Input (22.8~25.2V)			28	

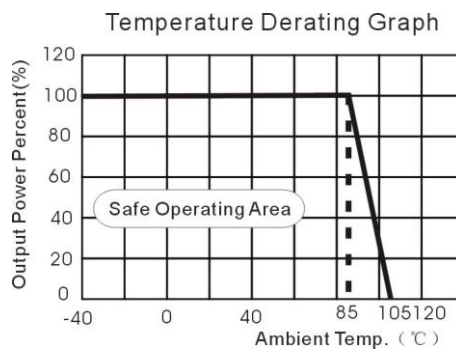
Product typical Curve



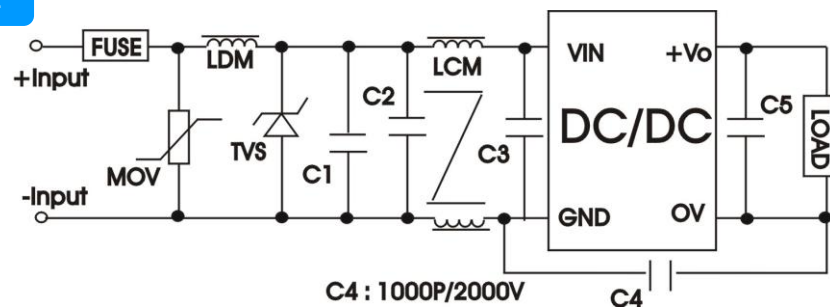
Mechanical Dimensions & Recommended Footprint



Temperature Derating Graph



EMC Recommended Circuit



EMC Module Application Circuit

