IFS-1W Series

Features

- ★ Small Footprint
- ★ In-Out Isolation Voltage 3000 VDC
- ★ 7 PIN SIP Package
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflaming retarding package
- ★ MTBF>1million hours(25℃)

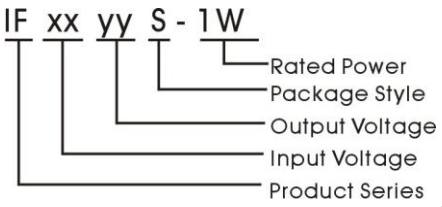
Applications

The IF_S-1W Series are designed for application where isolated output is required from a distributed power system.

These products apply to where:

1) 3000 VDC input and output isolation;
2) Input voltage variation ≤ ±10%;
3) Regulated and low ripple noise is not required.

Such as: digital circuits, and IGBT power device driving circuits.



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.		
IF0505S-1W	4.75~5.25VDC (5 VDC)	5.0V	20	200	277	32	72%	200
IF0509S-1W		9.0V	11	111	273		73%	
IF0512S-1W		12.0V	8	83	269		74%	
IF0515S-1W		15.0V	6	67	268		75%	
IF1205S-1W	11.4~12.6VDC (12 VDC)	5.0V	20	200	114	28	73%	
IF1209S-1W		9.0V	11	111	109		76%	
IF1212S-1W		12.0V	8	83	107		77%	
IF1215S-1W		15.0V	6	67	108		77%	
IF2405S-1W	22.8~25.2VDC (24 VDC)	5.0V	20	200	55	22	75%	
IF2409S-1W		9.0V	11	111	54		77%	
IF2412S-1W		12.0V	8	83	53		78%	
IF2415S-1W		15.0V	6	67	54		77%	

Common Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Tested for 1 minute and leakage current less than 1 mA	3000			VDC
Switching Frequency	Full load, nominal input		100		KHz
MTBF	MIL-HDBK-217F@25℃	1000			K hours
Isolation Resistance	Test at 500VDC	1000			MΩ
Isolation Capacitance			300		pF
Weight			2.6		g

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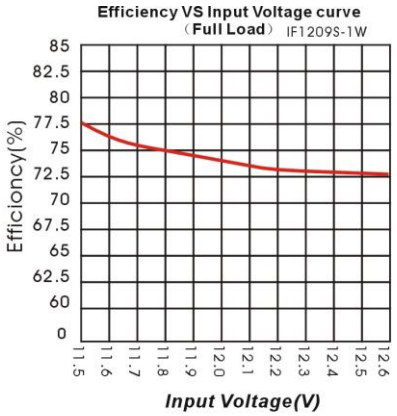
Output Specifications

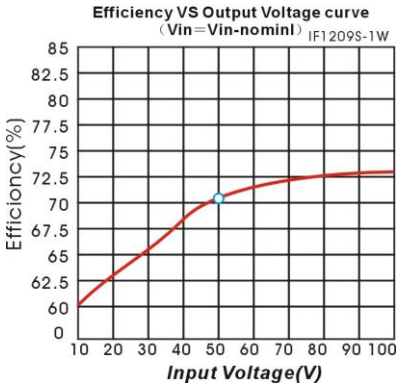
Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.1		1	W
Line Voltage Regulation	For Vin change of ±1%			±0.25	%
Output voltage accuracy	100% full load		0.01	0.02	
Load regulation	10% to 100% load		0.01	0.02	
Ripple	20MHz Bandwidth		10		mVp-p
Noise			20		
Temperature Drift	100% full load			±0.03	%/°C
Input Filter		C Filter			

Environmental Specifications

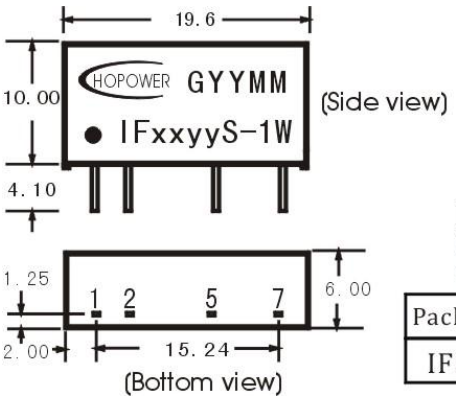
Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load			20	30	℃
Operating Temperature		-45		+85	
Storage Temperature	Power derating (above 85℃)	-55		+125	
Soldering Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

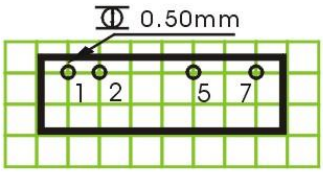
Product typical Curve





Mechanical Dimensions & Recommended Footprint

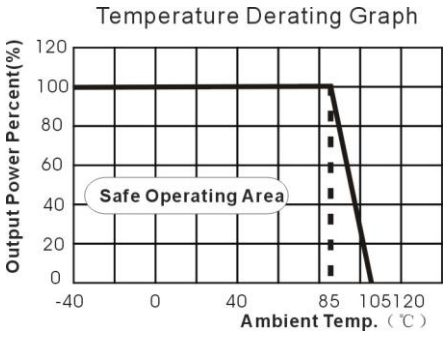




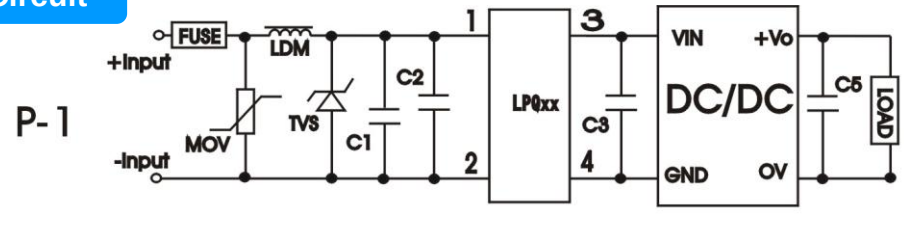
Note:Grid 2.54*2.54mm.
Unit: mm
General tolerances : 0.20mm

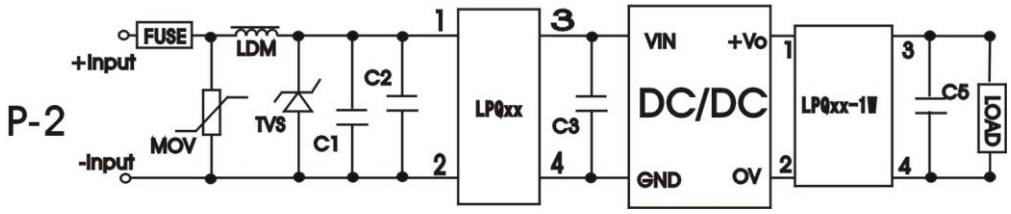
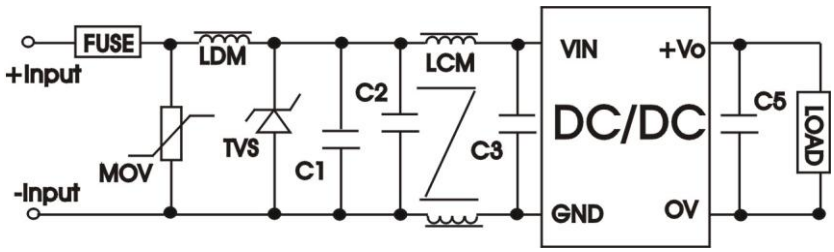
Package	Vin	GND	OV	+Vo
IFS	1	2	5	7

Temperature Derating Graph



EMC Module Application Circuit





EMC Recommended Circuit