

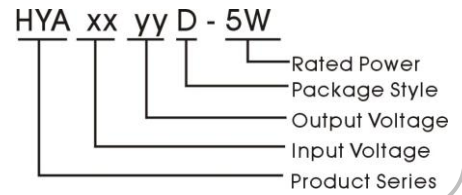
Features

- ★ Input / output Isolation Voltage 1000 VDC
- ★ DIP Package
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflaming retarding package
- ★ MTBF>1 million hours(25℃)
- ★ Short-circuit protection
- ★ Efficiency up to 84%



Applications

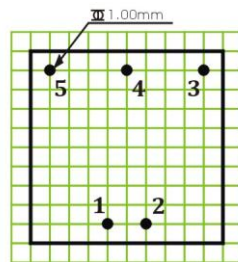
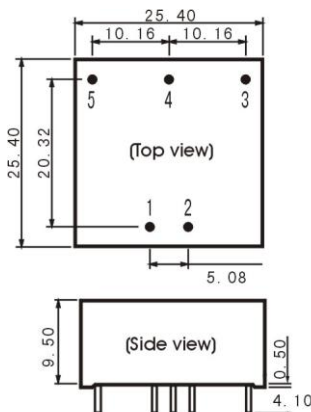
The HYA_D-5W series offer 5W of output, and features 1000VDC isolation and short-circuit. All models are particularly suited to tele-communications, industrial, test equipments power and other fields.



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.		
HYA1205D-5W	9~18VDC (12 VDC)	±5.0V	±50	±500	285	48	73%	500
HYA1209D-5W		±9.0V	±27	±278	278		75%	
HYA1212D-5W		±12.0V	±20	±208	253		82%	
HYA1215D-5W		±15.0V	±16	±166	247		84%	
HYA2405D-5W	18~36VDC (24 VDC)	±5.0V	±50	±500	138	36	75%	
HYA2409D-5W		±9.0V	±27	±278	133		78%	
HYA2412D-5W		±12.0V	±20	±208	126		82%	
HYA2415D-5W		±15.0V	±16	±166	123		84%	
HYA4805D-5W	36~72VDC (48 VDC)	±5.0V	±50	±500	69	32	75%	
HYA4809D-5W		±9.0V	±27	±278	66		78%	
HYA4812D-5W		±12.0V	±20	±208	63		82%	
HYA4815D-5W		±15.0V	±16	±166	62		83%	

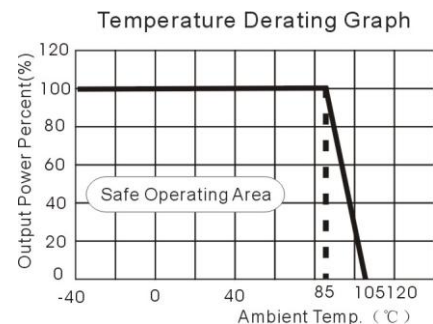
Mechanical Dimensions & Recommended Footprint



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

Package	Vin	GND	-Vo	OV	+Vo
HYAD	2	1	5	4	3

Temperature Derating Graph



Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		1		5	W
Output Voltage accuracy	0% to 100% load			±2	%
Line Regulation	Full load, Input voltage from low to high		±0.2	±0.5	
Load regulation	5% to 100% load		±0.3	±0.5	
Ripple & Noise	20MHz Bandwidth		75	105	mVp-p
Transient Recovery Time	25% load step change		0.5	2	ms
Transient Response Deviation			±2	±5	%
Temperature Drift	100% full load		±0.02	±0.03	%/°C
Short Circuit Protection		Hiccup, Continuous, automatic recovery			
Input Filter		□ Filter			

Environmental Specifications

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

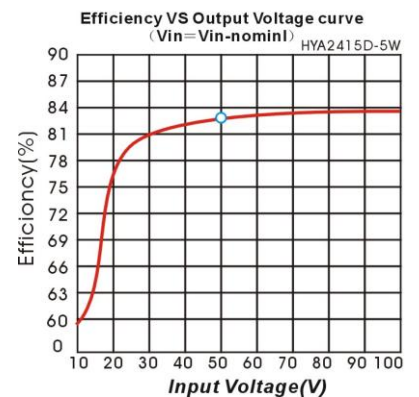
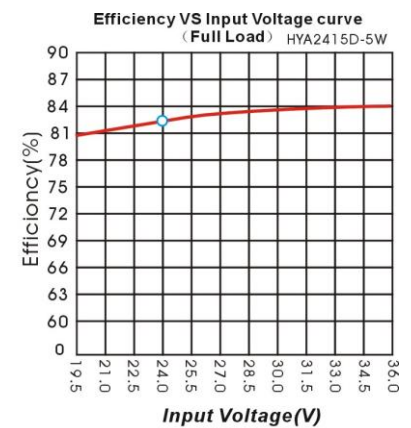
Common Specifications

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	150	200	300	KHz
MTBF	MIL-HDBK-217F@25°C	1000			K hours
Isolation Capacitance	Input/Output , 100KHz/1V		120		PF
Isolation Resistance	Test at 500VDC	1000			MΩ
Weight			15		g

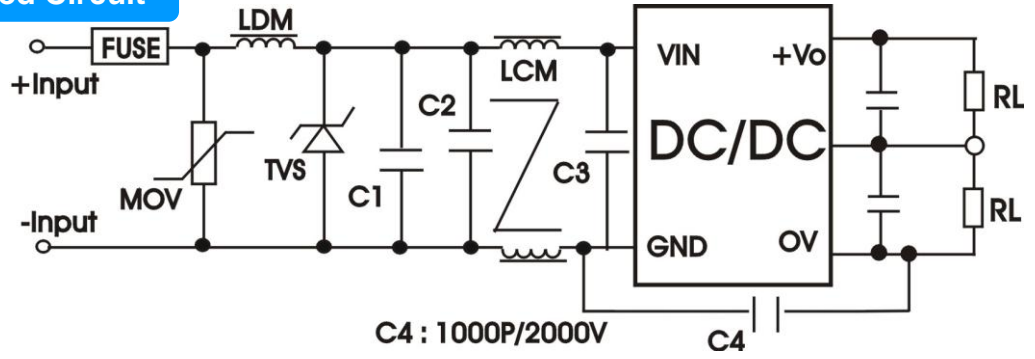
Input Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Input Max. voltage	12 VDC Input (9~18V)			20	VDC
	24 VDC Input (18~36V)			40	
	48 VDC Input (36~72V)			80	
Input surge voltage (1 sec. Max.)	12 VDC Input (9~18V)			25	VDC
	24 VDC Input (18~36V)			50	
	48 VDC Input (36~72V)			100	

Product typical Curve



EMC Recommended Circuit



EMC Module Application Circuit

