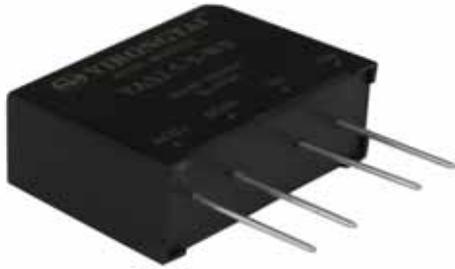


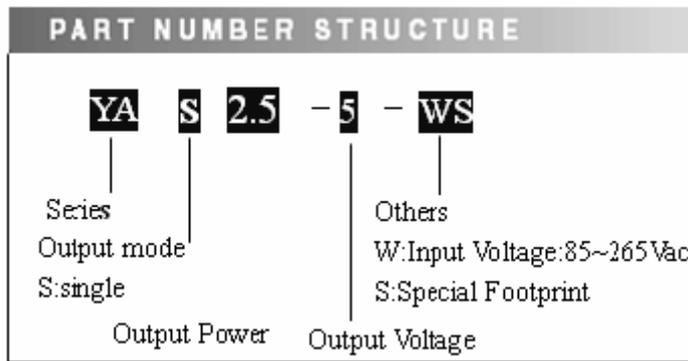
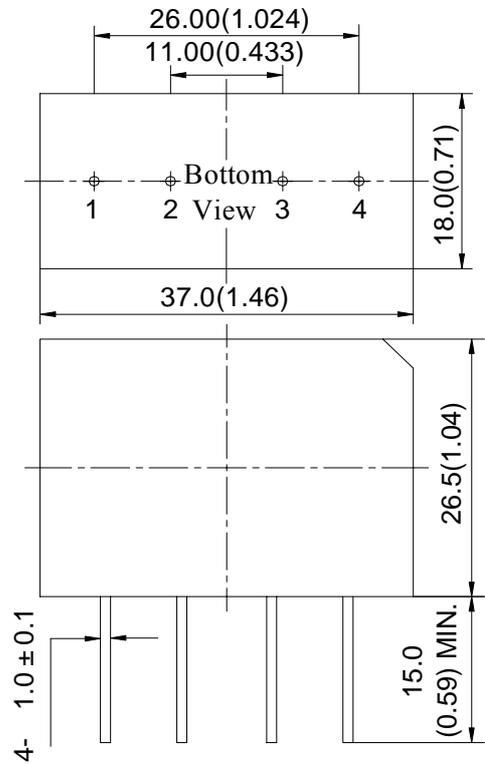
YAS2.5 Series Modules

Outline Diagram



Features

- Industry Size (37.0 mm×26.5 mm×18.0mm)
- Universal Input Voltage 85V_{ac} to 265V_{ac}
- 2500V_{ac} Isolation Voltage
- 60kHz Switching Frequency
- Short Circuit Protection , Auto Recovery
- 100% Burn-in
- 2-year warranty



Pin.	Symbol	Description
1	L	AC Input, Live Line
2	N	AC Input, Neutral Line
3	-V _O	-V _O
4	+V _O	+V _O

Case material: Black plastic, UL94V-0.
Pins material: Copper, tin-cerium plating
Notes: All dimensions in mm (inches)
Tolerances: X.X±0.5 (X.XX±0.02)
X.XX±0.25mm (X.XXX±0.010)

Performance Specifications And Ordering Guide

Unless otherwise specified, all values are given at: 25 °C, one standard atmosphere pressure, pure resistive load and basic connection.

Model	Output					Capacitive load(uF)	Input Range-AC (Volts)	Efficiency
	Voltage (V)	Current (A)	Ripple and Noise	Regulation (Max)				
				Line	Load			
YAS2.5-5-WS	5.05	0.5	150	±0.2%	±0.5%	2200	85-265	60%
YAS2.5-12-WS	12	0.21	100	±0.2%	±0.5%	2200	85-265	62%
YAS2.5-15-WS	15	0.16	100	±0.2%	±0.5%	1000	85-265	62%
YAS2.5-24-WS	24	0.1	150	±0.2%	±0.5%	470	85-265	62%

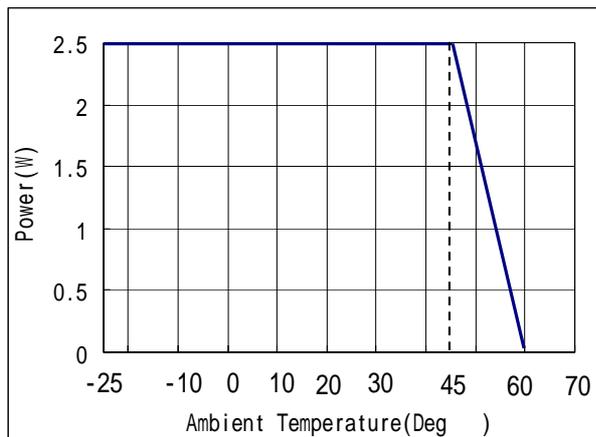
Performance/Functional Specifications

Input	
Input Voltage:	AC:85~265 DC:100~375
Output	
Voltage Accuracy:	±1%
Line Regulation:	See Ordering Guide
Load Regulation:	See Ordering Guide
Ripple and Noise:	150mVp-p Co=100μF
Efficiency:	See Ordering Guide
Transient Response Recovery Time(μs):	see the specific instructions
Transient Response Voltage Deviation (%):	see the specific instructions
Start-up Delay Time:	see the specific instructions
Rise Time:	see the specific instructions

General	
Isolation Voltage:	2500 1min/1mA (Input-Output)
Switching Frequency:	45-60KHz
MTBF :	3×10 ⁵ h(Bellcore RT332, 25)
Temperature Coefficient:	±0.2% per (Max)
Case Temperature:	-10 ~ +70 (Commercial) -25 ~ +85 (Industry)
Storage Temperature:	-40 ~ +105
Relative Humidity:	10%~90%
Short-circuit Protection:	Hiccup mode, automatic recovery
Isolation Resistance:	50 MΩmin(500V _{dc} ,90%RH)
Manual Soldering:	425 max (5s Max)
Wave Soldering:	260 max (10s Max)
Weight:	30g

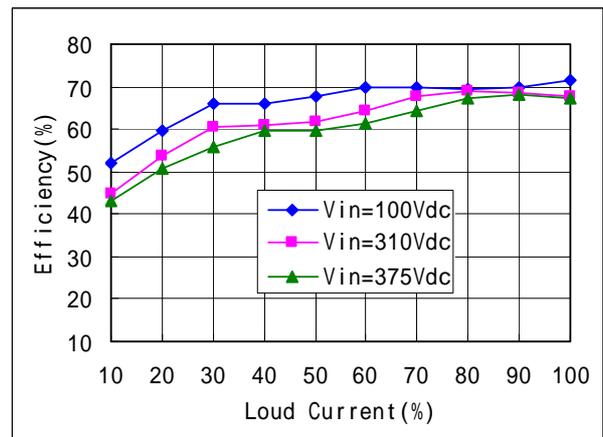
Characteristic Curves

Derating

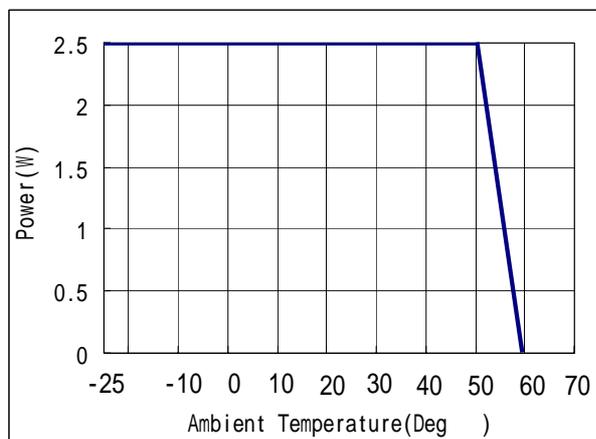


YAS2.5-5-WS

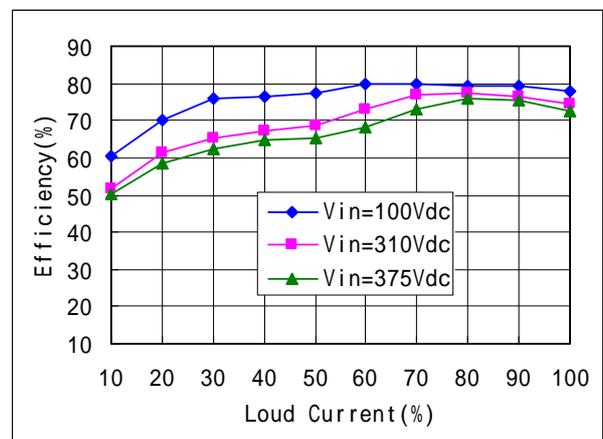
Efficiency



YAS2.5-5-WS

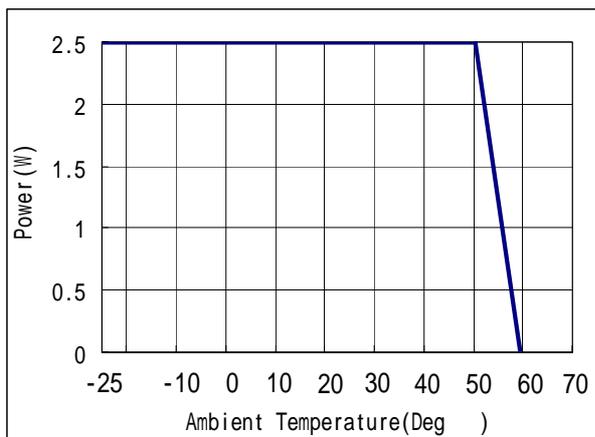


YAS2.5-12-WS



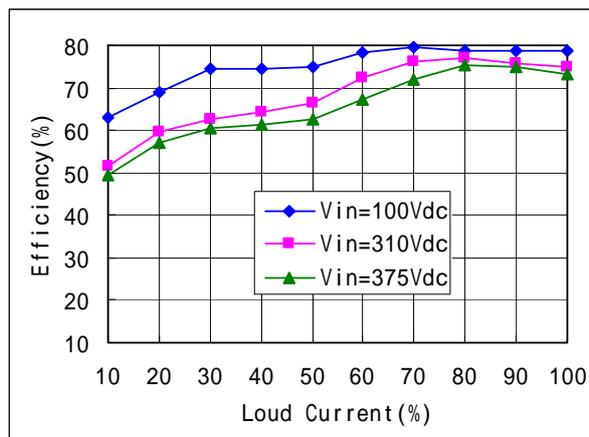
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Derating

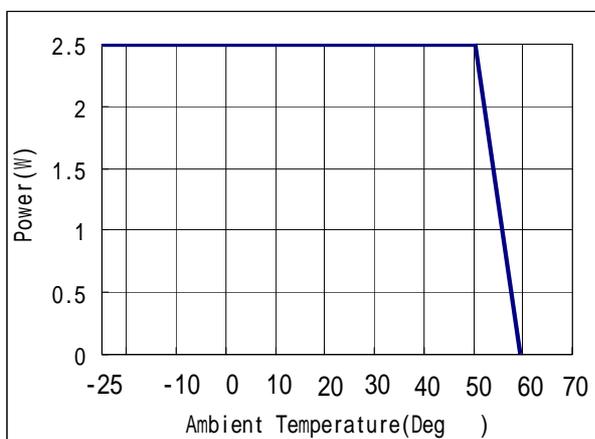


YAS2.5-15-WS

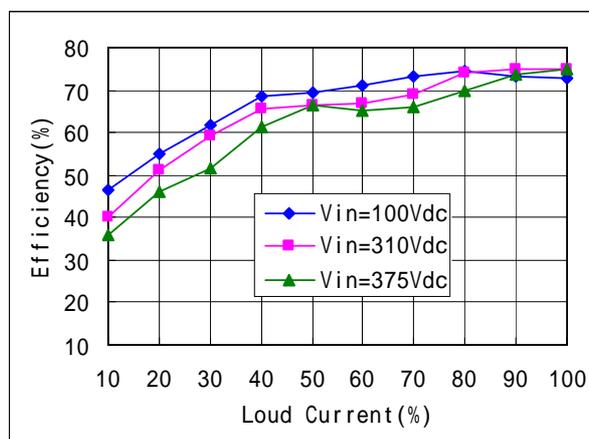
Efficiency



YAS2.5-15-WS



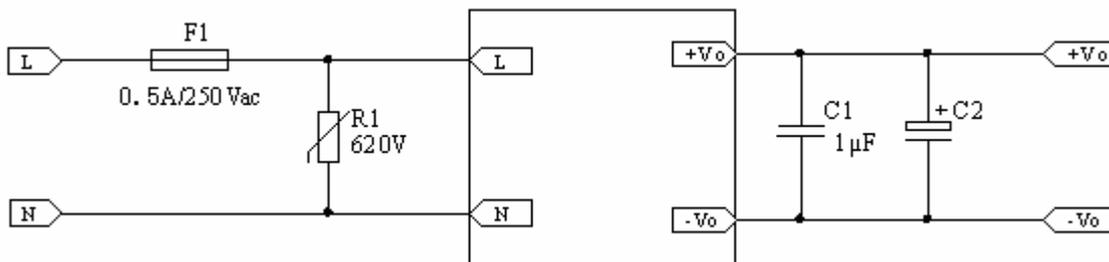
YAS2.5-24-WS



YAS2.5-24-WS

Design Considerations

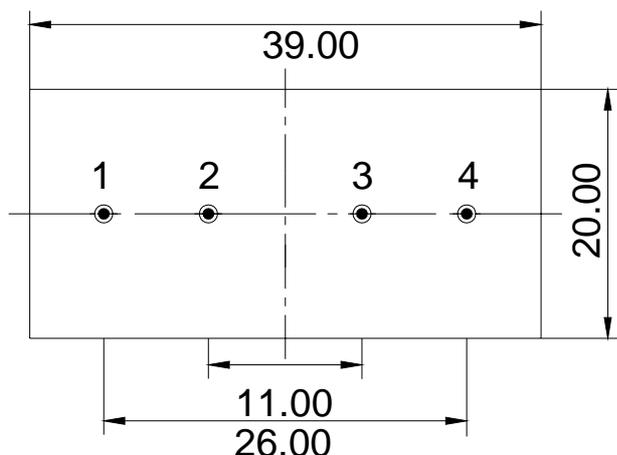
Basic Connection



Notes :

1. The pins of L、 N lines should be connected to the AC power outlet.
2. Please refer the instruction followed for further information.
3. F1: fuse , R1:VDR , C1:MLCC , C2: Electrolytic capacitor:22µF~220µF low esr capacitor.

Recommended Layout



No.	Recommendation & Notes
Pad Design	Pad hole: 1.2mm, pad diameter including hole: 2.5 mm.
Airflow Direction	The plastic case also is considered heat sink. Advised not to put flat surface down after mounted.
Safety	Isolated module, care to the spacing between input and output.
Electrical	The Vin(-) and Vo(-) planes should be placed under of the module separately. Avoid routing sensitive signal or high disturbance AC signal under the module.

Safety Consideration

The module, as one component for the end user, should be installed into the equipment, and all the safety considerations are achieved under certain condition. It is required to meet safety requirements in the system design. The module output is considered SELV, and the expected input is considered AC mains.

To avoid fire and be protected when short circuit occurred, it is recommended that a fast blow fuse with rating no less than 0.5A(Inrush current suppression circuit is required for greater filter capacitance at input terminal, or it will result in the disoperation of the fuse.) .

Delivery Package Information

Package material is multiple wall corrugated with less than $10^9 \Omega$ surface resistance; internal material is anti-static foam with less than $10^5 \Omega$ surface resistance. Tray capacity: $5 \times 6 = 30$ PCS/box , Tray weight: 1kg; Carton capacity: $15 \times 30 = 450$ PCS, Carton weight: 15.5kg.

Contact Information

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Series and Parallel Operation

The modules should not be paralleled directly to increase power, but they can be paralleled each other through o-ring switches or diodes. Make sure that every module’s maximum load current should not exceed the rated current at anytime.

The modules can operate in series. To prevent against start-up failure due to start up time difference, SBD with low voltage difference can be paralleled at the output pins(SBD negative terminal connect to the positive pin of the output) for each module.

Quality Statement

The modules are manufactured in accordance with ISO 9001 system requirements, in compliant with YD/T1376-2005, and are monitored 100% by auto-testing system, 100% burn in. The warranty for the modules is 2-year.