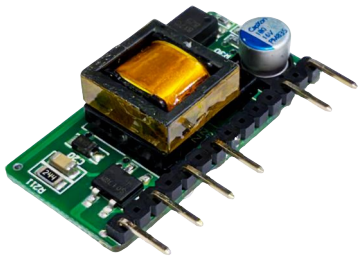
SAB series 5Watt

FEATURES:

- ✓ **Global voltage input (85-305Vac,50/60Hz)**
- ✓ **Dc input (100-400Vdc)**
- ✓ **Low ripple noise**
- ✓ **Standby power consumption ≤30mW**
- ✓ **Multiple protection**
- ✓ **100% burn-in test**
- ✓ **3 year warranty**



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
SAB05-S03R2	85-305Vac	3.3V	1A	67%
SAB05-S05R2	85-305Vac	5V	1A	74%
SAB05-S09R2	85-305Vac	9V	0.55A	76%
SAB05-S12R2	85-305Vac	12V	0.25A	78%
SAB05-S15R2	85-305Vac	15V	0.33A	80%
SAB05-S24R2	85-305Vac	24V	0.21A	78%

Note: other input and output models may available on request;

ELECTRICAL

Input

Parameters	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	---	85 100	--	305 400	Vac Vdc
Input frequency	---	47	--	63	Hz
Input current	Vin=120Vac Vin=230Vac	--	120 60	--	mA mA
Inrush current	Cold start, Vin=230Vac Cold start, Vin=115Vac	-- --	40 20	-- --	A A
Leakage current	265Vac/50Hz	--	--	0.1	mA

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ELECTRICAL

Parameters	Test Conditions / Comment	Min.	Typ.	Max.	Units
Output					
Output voltage accuracy	--	--	--	±2	%
Line regulation	--	--	±1.0	--	%
Load regulation	--	--	±1.5	--	%
Set-up rise time	Full load, Vin =115Vac Full load, Vin =230Vac	--	50 50	--	ms ms
Hold-up time	Full load, Vin =115Vac Full load, Vin =230Vac	--	10 10	--	ms ms
Ripple	---	--	50	--	mV P-P
Protection					
Over current	Hiccup mode, it will auto-recovery after fault condition is removed				
Over voltage	Hiccup mode, it will auto-recovery after fault condition is removed				
Short circuit	Hiccup mode, it will auto-recovery after fault condition is removed				
Environment					
Storage	Humidity: 10% RH to 95% RH	-40	--	+85	℃
Ambient operating temperature		-40	--	+85	℃
Operating relative humidity	Non condensing	--	--	85	%
MTBF	Full load, 230Vac input, 25℃ ambient temperature	300	--	--	kHrs
Temperature coefficient	0.03%/ (0~ 50℃)				
Vibration coefficient	10~500Hz, 2G10min./1cycle, 60min.each along X, Y, Z axes				
Dimension(LxWxH)	37*18.5*11.5mm(L*W*H)				

1.This part is open frame, at least 6.4mm creepage distance between the primary and secondary external components of the module is needed to meet the safety requirement.

2.Unless otherwise specified, parameters in this datasheet were measured under the condition ofTA=25℃, humidity＜75%, normal input voltage(115Vac and 230Vac) and rated output load.

3.In order to improve the light-loaded conversion efficiency, the module may have weak audio-frequency noise when the module load is less than 30% of the rated load, but it does not affect the performance and reliability of the product.

4.Modules needs to be glued and fixed after installation.

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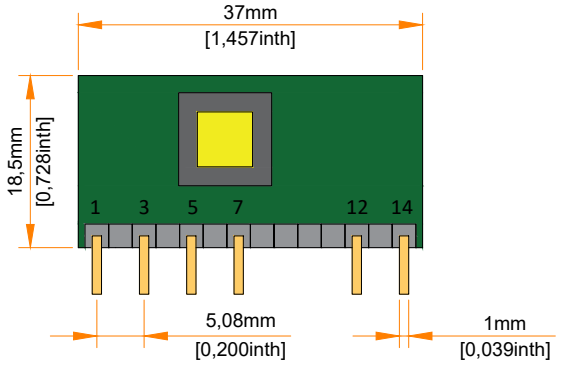
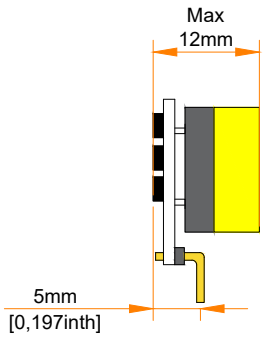
ELECTRICAL

Safety	
Safety standards	EN62368,IEC62368,UL62368
Isolation voltage	I/P-O/P:3000VAC/60S
Insulation Resistance	I/P-O/P>100M Ohms/500VDC 25℃ 70% RH
EMI / EMC	EN55011,EN55032(CISPR32)Class B (refer to below application circuit)
ESD	IEC/EN 61000-4-2 level 4 Contact ±8kV/Air ±15kV(refer to below application circuit)
RF Immunity	IEC/EN 61000-4-3 level 4 (refer to below application circuit)
Electrical Fast Transient	IEC/EN 61000-4-4 level 4 (refer to below application circuit)
Surge	IEC/EN 61000-4-3 level 5 (refer to below application circuit)

MECHANICAL





PIN #	define
1	AC(L)
3	AC(N)
5	+V(Cap)
7	-V(Cap)
12	-Vo
14	+Vo

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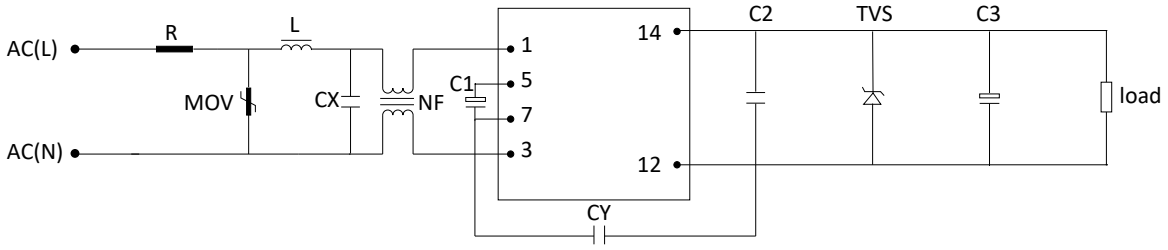
NOTE

RECOMMENDED TEST AND APPLICATION CIRCUIT



1. C2 is a ceramic capacitor, used for filtering high frequency noise. C3 is the high frequency and low ESR electrolytic capacitor. A suppressor diode (TVS) is recommended to protect the application in case of the converter failure.
2. In general applications, the common mode choke NF in the dotted lines box do not have to be used,the common mode choke L=30mH, this inductance needs to be added when higher EMC requirements need to be met.
3. If you need any technical support, please contact us.

EMC RECOMMENDED APPLICATION CIRCUIT

	3.3VDC	5VDC	9VDC	12VDC	15VDC	24VDC
R	10Ω/1W					
MOV	10D561K					
L	2mH					
C1	When inputting 120Vac, it is recommended to have a capacitance value greater than 33uF, and when inputting 220V, it is recommended to have a capacitance value greater than 4.7uF					
C2	104K/50V					
CX	104K/275Vac					
CY	1nF/400Vac					
C3	330uF/16V	330uF/16V	330uF/16V	220uF/16V	150uF/25V	150uF/35V
TVS	P6KE7.5A	P6KE7.5A	P6KE15A	P6KE16A	P6KE20A	P6KE30A