



3S4AE_1UP Series

3W Single Output - Fixed Input - Isolated & Unregulated
SIP PACKAGE

DC-DC Converter

3 Watt

- ⊕ Short circuit protection (SCP)
- ⊕ 4PIN SIP package
- ⊕ Temperature range:
-40°C ~ +85°C
- ⊕ Efficiency up to 85%
- ⊕ 1KVDC isolation
- ⊕ Internal SMD construction
- ⊕ Industry standard pinout
- ⊕ RoHS compliance

The 3S4AE_1UP series contains miniature, isolated 3W DC/DC converters in a SIP package. They offer the ideal solution in many space critical applications for board level power distribution.

The internal SMD construction makes it possible to offer a product with high performance at low cost. The series offers smaller size, improved efficiency, lower output ripple noise and 1KVDC isolation.



Common specifications	
Short circuit protection:	Continuous
Filter:	Capacitor
Cooling:	Free air convection
Operation temperature range:	-40°C – +85°C
Storage temperature range:	-55°C – +85°C
Lead temperature:	300°C (1.5mm from case for 10 sec.)
Storage humidity range:	< 95%
Case material:	DAP
MTBF (MIL-HDBK-217F @25°C):	>3,500,000 hours
Dimensions:	11.50x7.50x10.00mm
Weight:	1.3g

Isolation specifications					
Item	Test condition	Min	Typ	Max	Units
Isolation voltage	Tested for 1 minute	1000			VDC
Isolation resistance	Input-output, isolation voltage 500VDC	1000			MΩ

Example:

3S4AE_0505S1UP
3= 3Watt; S4= SIP4; A= Pinning; E= Cost effective; 5Vin; 5Vout;
S= Single Output; 1= 1kVDC; U= Unregulated Output; P= Short circuit protection (SCP)

Output specifications					
Item	Test condition	Min	Typ	Max	Units
Voltage tolerance	100% full load			±5	%
Line regulation	For Vin change of ±1%		1.2		%
Load regulation (10%-100% load)	• 5VDC/9VDC output • 12VDC/5VDC output			18 12	% %
Ripple&Noise	20MHz Bandwidth		80		mVp-p
Switching frequency			100		KHz

*Ripple and noise are measured by "parallel cable" method.

Input specifications					
Item	Test condition	Min	Typ	Max	Units
Voltage range	• 5V input • 12V input	4.5 10.8	5 12	5.5 13.2	V V
Reflected ripple current			26	48	mA
Surge voltage	• 5V input • 12V input	-0.7 -0.7		9 18	VDC VDC
Input filter	Capacitor				
Hot plug	Unavailable				

Note:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;
2. All index testing methods in this datasheet are based on our Company's corporate standards;
3. We can provide product customization service;
4. Specifications are subject to change without prior notice.

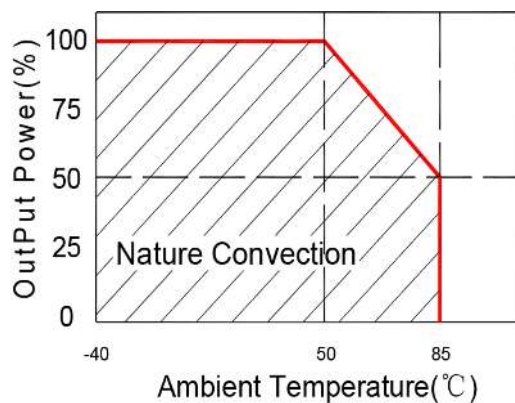
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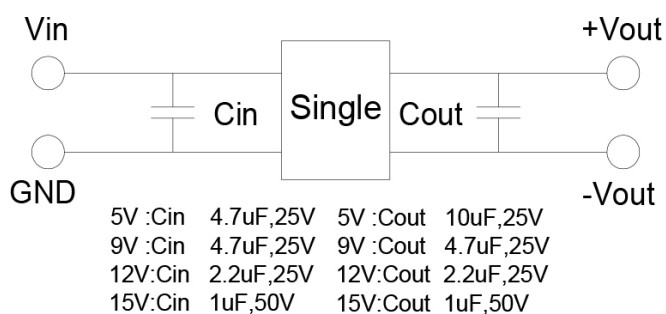
Part Number	Input Voltage [V]	Output Voltage [VDC]	Current [mA, max]	Efficiency [%, typ]
3S4AE_0505S1UP	5	5	600	80
3S4AE_0509S1UP	5	9	333	83
3S4AE_0512S1UP	5	12	250	83
3S4AE_0515S1UP	5	15	200	83
3S4AE_0905S1UP	9	5	600	81
3S4AE_0909S1UP	9	9	333	81
3S4AE_0912S1UP	9	12	250	84
3S4AE_0915S1UP	9	15	200	84
3S4AE_1205S1UP	12	5	600	83
3S4AE_1209S1UP	12	9	333	83
3S4AE_1212S1UP	12	12	250	85
3S4AE_1215S1UP	12	15	200	85
3S4AE_1505S1UP	15	5	600	81
3S4AE_1509S1UP	15	9	333	83
3S4AE_1512S1UP	15	12	250	84
3S4AE_1515S1UP	15	15	200	84

Typical characteristics

Temperature derating graph



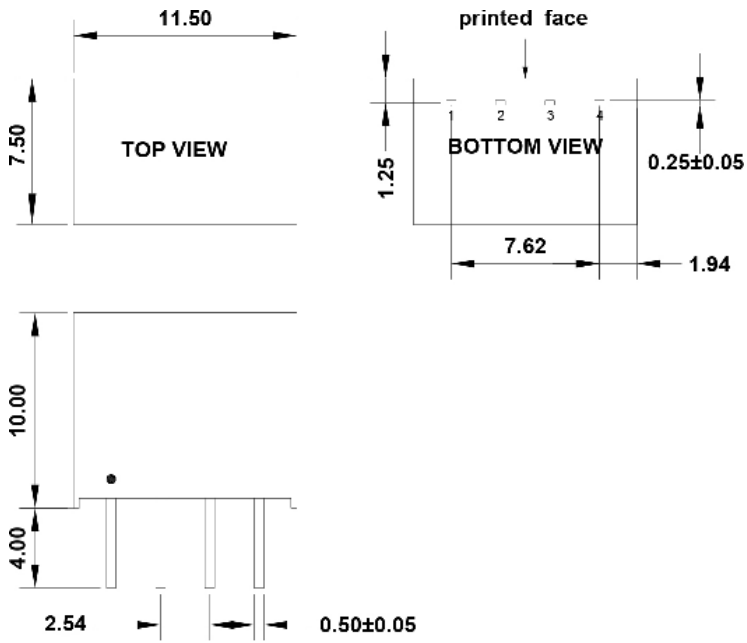
Recommended circuit



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Mechanical Dimensions



Pin	Function
1	-Vin
2	+Vin
3	-Vout
4	+Vout

Unit: mm Unless otherwise specified, all tolerances are ± 0.25