

AS30WR-RSCF



30Watt Single Output Regulated 1500Vdc Isolation Dc-Dc Converter

FEATURES

4:1 Wide Input Voltages Range

High Efficiency up to 91%

Regulated Output Types

1" X 1" DIP Package

Operating Temperature: -40°C TO +80°C

Industry Standard Pinout

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified					
Part Number	Input Voltage Range	Nominal Input Voltage	Output Voltage Range	Output Current	Efficiency
	Vdc	Vdc	Vdc	mA	%TYP
AS30WR-24S03RSCF	9-36	24	3.3	7000	86
AS30WR-24S05RSCF	9-36		5	6000	88
AS30WR-24S12RSCF	9-36		12	2500	89
AS30WR-24S15RSCF	9-36		15	2000	89
AS30WR-48S03RSCF	18-75	48	3.3	7000	87
AS30WR-48S05RSCF	18-75		5	6000	89
AS30WR-48S12RSCF	18-75		12	2500	90
AS30WR-48S15RSCF	18-75		15	2000	91

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Type				4:1	
Input current at no load (Nominal input voltage)	24V models 48V models		10 10		mA
Surge Voltage (1 sec. max.)	24V models 48V models			50 100	Vdc

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±2	%
Short Circuit Protection	Continuous ,Auto-Recovery				
Output Power Protection	Continuous ,Auto-Recovery	110%		170%	
Over Voltage Protection	3.3Vdc 5Vdc 12Vdc 15Vdc	3.7 5.6 13.5 18.3		5.4 7.0 19.6 22.0	Vdc
Line Regulation	Nominal Input Voltage			±0.5	%
Load Regulation	Single output models			±0.5	%
Ripple & Noise	BW=DC To 20MHz 3.3V & 5V with 22uF MLCC 12V & 15V with 2*22uF MLCC			100	mVp-p
Start up time	Nominal Input Voltage			30	ms
Transient response setting time	25% load step change		350		us

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General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Voltage	Input To Output	1500			Vdc
	Input(Output) To Case	1000			
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input	275			KHz
Operating Temperature		-40		80	°C
Case Temperature				105	°C
Humidity	Non Condensing	5		95	%
Cooling	Free air Convection				
Case material	Six-side shield case				
MTBF	MIL-HDBK-217F@25°C	1200000			Hours
Weight			22		g
Dimensions		25.4X25.4X10.6			mm

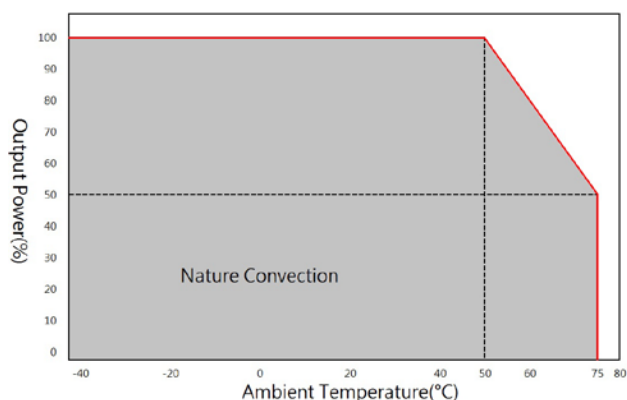
Part Number

AS30 W R - 24 S 03 RS C F

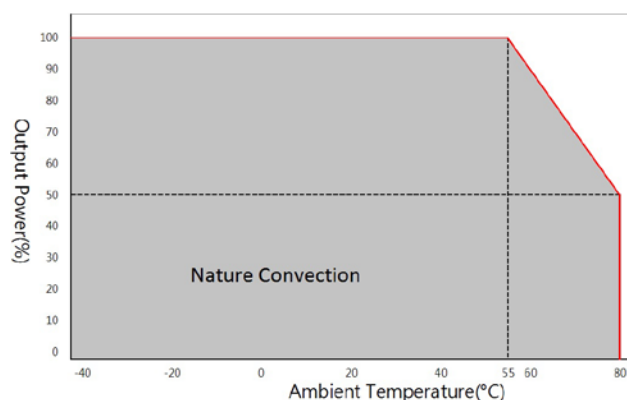
1 2 3 4 5 6 7 8 9

- 1:Series
- 2:Wide Input Voltage 4:1
- 3:Regulated Output Types
- 4:Input Voltage
- 5:(S) Single Output
- 6:Output Voltage
- 7:Case 25.4X25.4X10.6
- 8:Short Circuit Protection Continuous
- 9:High Efficiency up to 91%

Temperature Derating Graph

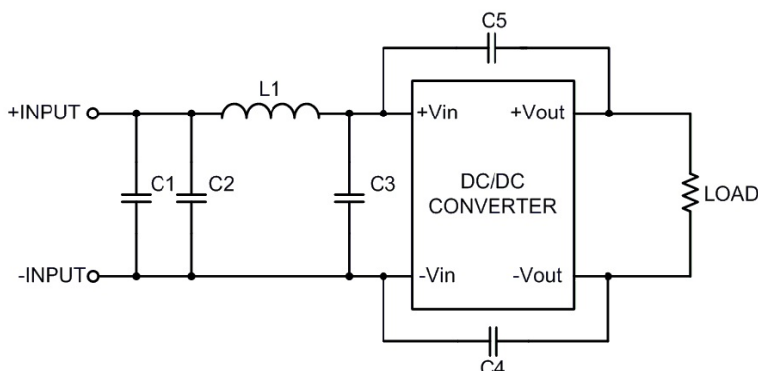


Derating Curve



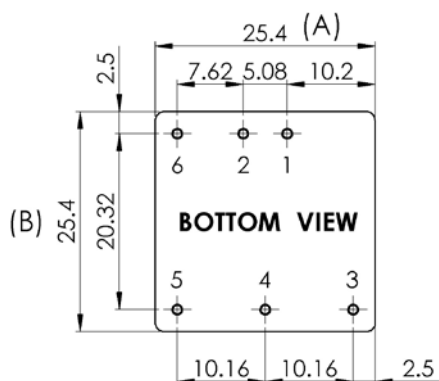
Derating Curve With Heat-sink

Recommended Test Circuit

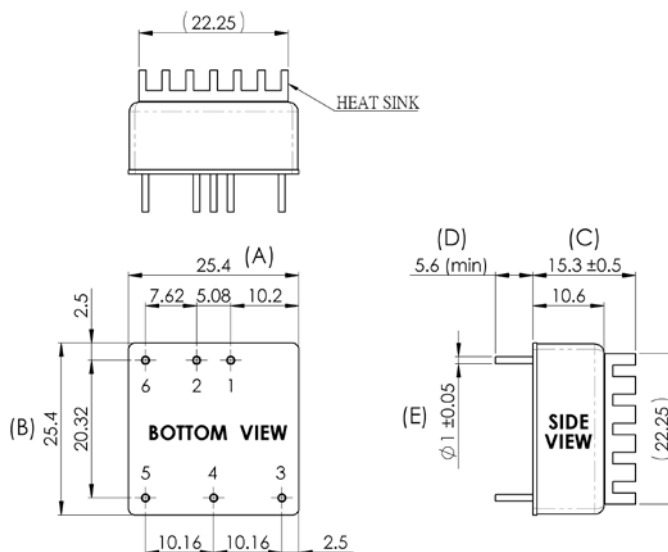


24V C1&C2&C3 4.7uF/50V C4&C5 1000pF/2kV L1 2.2uH
48V C1&C2&C3 4.7uF/100V C4&C5 2200pF/2kV L1 10uH

Markings and Dimensions



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Assignment

PIN	1	2	3	4	5	6
Single	+Vin	-Vin	+Vout	Trim	-Vout	Remote ON/OFF