

PART NUMBER: VAWQ6

DESCRIPTION: dc-dc converter

features

- 5-6W isolated output
- efficiency to 80%
- 24-Pin DIP package
- 4:1 input range
- regulated outputs
- continuous short circuit protection
- Pi input filter



model number	input voltage	output voltage	output current	input current		efficiency
				no load	full load	
VAWQ6-Q24-S3R3	9-36VDC	3.3VDC	1000mA	15mA	191mA	72%
VAWQ6-Q24-S5	9-36VDC	5VDC	1000mA	15mA	267mA	78%
VAWQ6-Q24-S12	9-36VDC	12VDC	470mA	15mA	294mA	80%
VAWQ6-Q24-S15	9-36VDC	15VDC	400mA	15mA	313mA	80%
VAWQ6-Q24-D5	9-36VDC	±5VDC	±500mA	25mA	288mA	80%
VAWQ6-Q24-D12	9-36VDC	±12VDC	±230mA	25mA	297mA	80%
VAWQ6-Q24-D15	9-36VDC	±15VDC	±190mA	25mA	267mA	78%
VAWQ6-Q48-S3R3	18-72VDC	3.3VDC	1000mA	7.5mA	100mA	70%
VAWQ6-Q48-S5	18-72VDC	5VDC	1000mA	7.5mA	134mA	78%
VAWQ6-Q48-S12	18-72VDC	12VDC	470mA	7.5mA	149mA	79%
VAWQ6-Q48-S15	18-72VDC	15VDC	400mA	7.5mA	157mA	80%
VAWQ6-Q48-D5	18-72VDC	±5VDC	±500mA	12mA	146mA	79%
VAWQ6-Q48-D12	18-72VDC	±12VDC	±230mA	12mA	149mA	80%
VAWQ6-Q48-D15	18-72VDC	±15VDC	±190mA	12mA	135mA	77%

NOTES:

1. suffix "HM" for black coated copper with non-conductive base case material
2. suffix "H" for 3K Vdc isolation
3. suffix "-SMT" for SMT case style

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INPUT

input voltage range	24V 9-36V 48V 18-72V
input filter	PI type

OUTPUT

voltage accuracy	±2.0% max.
voltage balance (dual)	±1.0% max
ripple & noise 20MHz BW	3.3V/5V 100mV p-p, max. 12V/15V 1% p-p max.
temperature coefficient	±0.05%/°C
short circuit protection	continuous
line regulation ¹ single/dual	±0.5% max
load regulation ² single ² dual ³	±0.5% max ±1% max

GENERAL SPECIFICATIONS

efficiency	see table
isolation resistance	10 ⁹ Ohm
switching frequency	200KHz, min.
operating temperature range	-25°C to +71°C
case temperature (plastic case)	95°C
(copper case)	100°C
cooling	free-air convection
storage temperature range	-40°C to +100°C
dimensions	1.25x0.8x0.4 inches (31.8x20.3x10.2mm)

ISOLATION VOLTAGE

1.5 k V dc min.	standard or suffix "HM" models
3 k V dc min.	suffix "H" models

CASE MATERIAL

standard models	non conductive black plastic
suffix "HM" models	black coated copper with non-conductive base

NOTES:

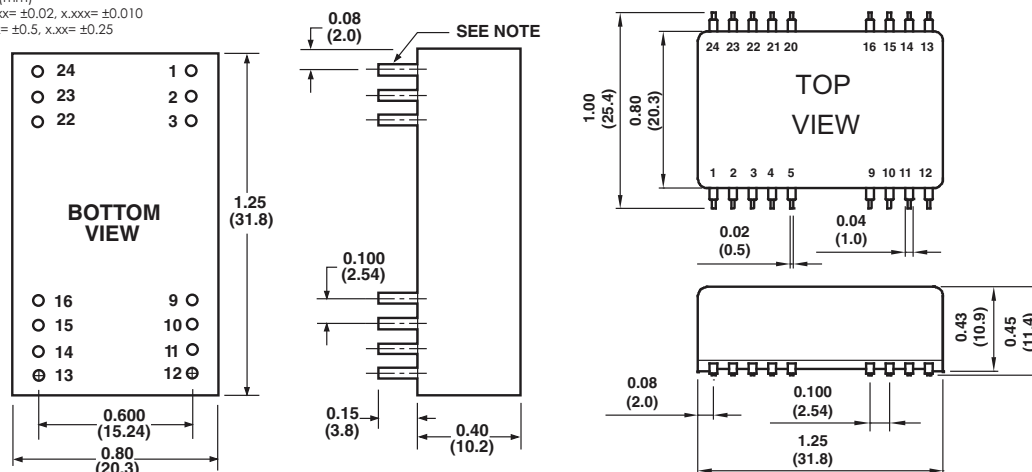
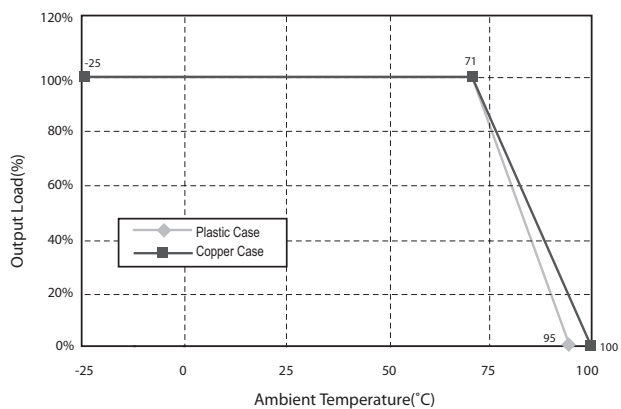
1. Measured from high line to low line
2. Measured from full load to 10% load
3. Measured from full load to 1/4 load
4. Non-conductive black plastic only

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DIMENSIONS (mm)

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA
 All Dimensions In Inches(mm)
 Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
 Millimeters: x.x= ±0.5, x.xx= ±0.25


DERATING CURVE

PIN CONNECTIONS

Pin	Single Output		Dual Output	
	DIP	SMD	DIP	SMD
1, 24	NP	NC	NP	NC
2, 3	-V Input		-V Input	
4, 5	NP	NC	NP	NC
9	NC		Common	
10, 15	NC		NC	
11	NC		-V Output	
12, 13	NP	NC	NP	NC
14	+V Output		+V Output	
16	-V Output NC		Common	
20, 21	NP	NC	NP	NC
22, 23	+V Input		+V Input	

*NP-NO PIN

*NC-NO CONNECTION WITH PIN