TECHNICAL DATASHEET

367DH-27-SDB4

200 Watt, isolated, single output buck-boost converter with internal decoupling diode

All parameters defined on Ta=25°C, IoNom = 8.0 ADC and UiNom = 48VDC

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	85.00
Feedback protection against overvoltage on the output	VDC	38
Worst case output voltage in fault mode	VDC	38

THERMAL CHARACTERISTICS

parameter	min to max	typ
Ambient temperature range	-40°C / +85°C	
Max. case temperature for thermal shut down [°C]		+90°C
Storage temperature (device not in operation)	-10°C / +65°C	
Relative maximum humidity under storage		75% RH
Storage under worst conditions [in days]		25

COMMUNICATION INTERFACE

parameter	unit	fulfilled	conditions	min to max
Option shut down (left open for operation)		✓		
Shutdown voltage for transformer	VDC		IoNom	-0.2 to 2.8
Option Switch high (left open for normal operation)		✓		
Output voltage in switch high mode	VDC		IoNom	29.0

SPECIALS

parameter	unit	fulfilled	conditions	typ
Switching frequency	kHz			135
Efficiency at light loads	%		0.25IoNom	91.00
Efficiency at medium loads	%		0.5IoNom	92.00
Efficiency at full loads	%		IoNom	90.00
MTTF	h		SN29500 @ 70°	1 300 000
For active loads or parallel connection		✓		
Drives high capacitive loads		✓		
CC/CV battery load characteristic		✓		
Coupling capacitance input to output	nF			transformer winding only
Insulation strength primary to secondary	VDC			2100
Insulation strength primary to case	VDC			2100

COMPLIANCE

parameter	fulfilled	notes
61000-6-2 (EMC-Immunity standard for industrial environment)	✓	
61000-4-2 (immunity against ESD-electrostatic discharge)	✓	
61000-4-3 (immunity High frequency electromagnetic fields)	✓	

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61000-4-4 (immunity against burst – electrical fast transients)	✓	
61000-4-5 (immunity against surge - high energy surges)	✓	
61000-4-6 (immunity against induced, conducted disturbances)	✓	
61000-6-4 (EMC – Emission standard for industrial environment)	✓	
55022<A	✓	
50155	✓	ready for

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INPUT

parameter	unit	conditions	min	typ	max
Input voltage range	VDC	IoNom	24	48	80
No load input current	mA	UiNom		30	
Max. input current	A	UiNom		10	
Input start up voltage	VDC	UiNom		24.0	
Undervoltage lockout	VDC	UiNom		23.0	
Input quiescent current in shutdown mode	mA	UiNom		5.00	
Input current overshoot during soft start ramp up	%	IoNom		100	
Generated AC-ripple on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		100	
Generated HF-noise on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		20	
Reflected input ripple current	mAp-p	UiNom/IoNom		90	

OUTPUT

parameter	unit	conditions	min	typ	max
Output voltage	VDC	IoNom		27.0	
No Load output voltage increase	%	UiNom		4	
Minimum required load to obtain the specified output voltage	%	UiNom		2	
Generated AC-ripple on the output (BW=20MHz)	mVp-p	UiNom/IoNom		20	
Generated HF-noise on the output (BW=20MHz)	mVp-p	UiNom/IoNom		30	
Output voltage accuracy	%	IoNom		+/-2.00%	
Output voltage overshoot at initial switch-on	%	IoNom		overdamped	
Rated output power	W			200	

CONTROL

parameter	unit	conditions	min	typ	max
Static line regulation	%	IoNom/UiMin...UiMax		0.10	
Static load regulation	%	IoMin...IoMax/UiNom		1.2	
Dynamic load change adjusting time	ms	LoadChange 10...90%		0.30	
Dynamic load change deviation to nominal output voltage	V	LoadChange 10...90%		3.50	
Maximum admissible capacitive load	uF	IoNom		infinite	
Initial switch on time	ms	IoNom		15	
Softstart ramp up time	ms	IoNom		15	

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MECHANICAL

parameter	unit	
Overall dimensions	mm	90x90x25
Weight	g	370

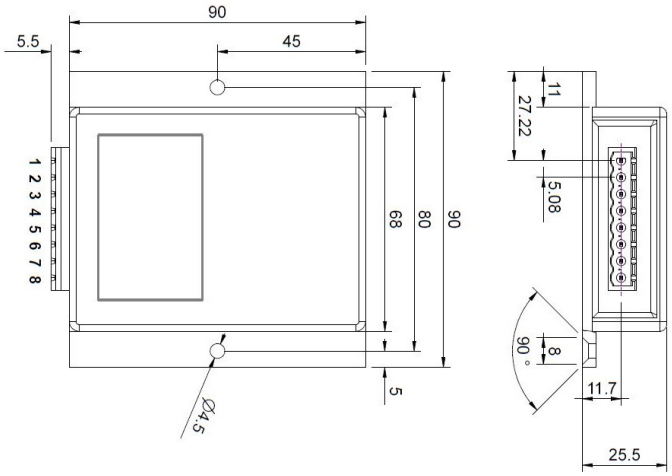
Pin No.	Function	Electrical Determination
1	Vi+	Input voltage positive
2	Vi-	Input voltage negative
3	SD	Shut down
4	SH	Switch high
5	NC	Not connected
6	NC	Not connected
7	Vo-	Output voltage negative
8	Vo+	Output voltage positive

Mechanical dimensions and Pin configuration

All dimensions in mm

Connector type: CCA 2,5/8-G-5,08 P26THR

Case: FMC 90x90x26



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