257LEX-24-SD

200 Watt, non isolated, single output buck-boost converter with internal decoupling diode All parameters defined on Ta=25°C, IoNom = 8.0 ADC and UiNom = 12VDC

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	37.00
Feedback protection against overvoltage on the output	VDC	44

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)		\checkmark		
Shutdown voltage for transformer	VDC		loNom	-0.2 to 2.8

SPECIALS

unit	fulfilled	conditions	typ
kHz			120
%		0.25loNom	95.00
%		0.5loNom	97.00
%		loNom	97.00
	\checkmark		
	\checkmark		
	\checkmark		
VDC			1500
	kHz % %	kHz % % % √ √ √	kHz 0.25loNom % 0.5loNom % loNom √ √ √ √

COMPLIANCE parameter	fulfilled	notes
61000-6-2 (EMC-Immunity standard for industrial environment)	\checkmark	
61000-4-2 (immunity against ESD-electrostatic discharge)	\checkmark	
61000-4-3 (immunity High frequency electromagnetic fields)	\checkmark	
61000-4-4 (immunity against burst – electrical fast transients)	\checkmark	
61000-4-5 (immunity against surge - high energy surges)	\checkmark	
61000-4-6 (immunity against induced, conducted disturbances)	\checkmark	
61000-6-4 (EMC - Emission standard for industrial environment)	\checkmark	
55022 <a< td=""><td>\checkmark</td><td></td></a<>	\checkmark	

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Demke Electronic GmbH Tonhallestrasse 37 9500 Wil • Switzerland

phone +41 71 511 34 00 e-mail sales@demke-electronic.com

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

INPUT					
parameter	unit	conditions	min	typ	max
Input voltage range	VDC	loNom	7	12	35
No load input current	mA	UiNom		60	
Max. input current	А	UiNom		40	
Input start up voltage	VDC	UiNom		6.5	
Undervoltage lockout	VDC	UiNom		6.0	
Input quiescent current in shutdown mode	mA	UiNom		3.00	
Generated AC-ripple on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		50	
Generated HF-noise on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		60	

OUTPUT

parameter	unit	conditions	min typ max
Output voltage	VDC	loNom	24.0
Minimum required load to obtain the specified output voltage	%	UiNom	0
Generated AC-ripple on the output (BW=20MHz)	mVp-p	UiNom/IoNom	60
Generated HF-noise on the output (BW=20MHz)	mVp-p	UiNom/IoNom	100
Output voltage accuracy	%	loNom	+/-2.00%
Output voltage overshoot at initial switch-on	%	loNom	overdamped
Rated output power	W		200

CONTROL

unit	conditions r	nin typ	max
%	loNom/UiMinUiMax	0.20	
%	loMinloMax/UiNom	0.2	
ms	LoadChange 1090%	1.50	
V	LoadChange 1090%	1.20	
uF	loNom	infinite	
ms	loNom	50	
ms	loNom	30	
	% % ms V uF ms	% IoNom/UiMinUiMax % IoMinIoMax/UiNom ms LoadChange 1090% V LoadChange 1090% uF IoNom ms IoNom	%IoNom/UiMinUiMax0.20%IoMinIoMax/UiNom0.2msLoadChange 1090%1.50VLoadChange 1090%1.20uFIoNominfinitemsIoNom50

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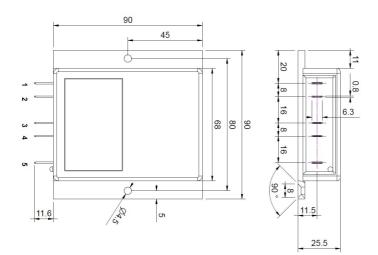
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MECHANICAL

parameter	unit	
Overall dimensions	mm	90x90x26
Weight	g	355

Pin No.	Function	Electrical Determination
1	SD	Shut down
2	Vi+	Input voltage positive
3	Vi-	Input voltage negative
4	Vo-	Output voltage negative
5	Vo+	Output voltage positive

Mechanical dimensions and Pin configuration All dimensions in mm Connector type: Flat pin plug 6.3mm Case: FMC 90x90x26



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phone +41 71 511 34 00 e-mail sales@demke-electronic.com

web www.demke-electronic.com