TECHNICAL DATASHEET

355W1-12.3-SD

100 Watt, isolated, single output buck converter

All parameters defined on Ta=25°C, IoNom = 8.0 ADC and UiNom = 80VDC

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	125.00
Feedback protection against overvoltage on the output	VDC	36

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	min to max
Option shut down (left open for operation)		✓	

SPECIALS

parameter	unit	fulfilled	conditions	typ
Switching frequency	kHz			120
Efficiency at medium loads	%		0.5IoNom	90.50
Efficiency at full loads	%		IoNom	90.00
MTTF	h		SN29500 @ 70°	1 600 000
For active loads or parallel connection		✓		
Coupling capacitance input to output	nF			transformer winding only
Insulation strength primary to secondary	VDC			500

COMPLIANCE

parameter	fulfilled	notes
61000-6-2 (EMC-Immunity standard for industrial environment)	✓	
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)	✓	
50155	✓	

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INPUT

parameter	unit	conditions	min	typ	max
Input voltage range	VDC	IoNom	16	80	100
No load input current	mA	UiNom		23	
Max. input current	A	UiNom		6	
Input start up voltage	VDC	UiNom		15.3	
Undervoltage lockout	VDC	UiNom		13.5	
Input quiescent current in shutdown mode	mA	UiNom		1.00	
Input current overshoot during soft start ramp up	%	IoNom		20	
Generated AC-ripple on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		280	
Generated HF-noise on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		100	

OUTPUT

parameter	unit	conditions	min	typ	max
Output voltage	VDC	IoNom		12.3	
No Load output voltage increase	%	UiNom		4	
Minimum required load to obtain the specified output voltage	%	UiNom		0	
Generated AC-ripple on the output (BW=20MHz)	mVp-p	UiNom/IoNom		30	
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			100	

CONTROL

parameter	unit	conditions	min	typ	max
Static line regulation	%	IoNom/UiMin...UiMax		0.20	
Static load regulation	%	IoMin...IoMax/UiNom		1.5	
Dynamic load change adjusting time	ms	LoadChange 10...90%		0.20	
Maximum admissible capacitive load	uF	IoNom		infinite	
Initial switch on time	ms	IoNom		40	

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MECHANICAL

parameter	unit	
Overall dimensions	mm	77x52x19
Weight	g	166

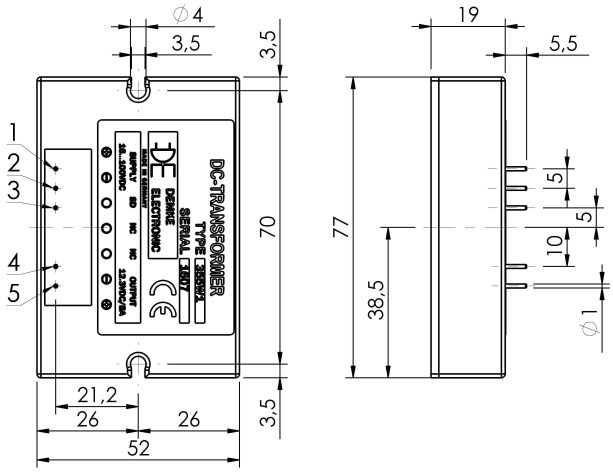
Pin No.	Function	Electrical Determination
1	Vi+	Input voltage positive
2	Vi-	Input voltage negative
3	SD	Shut down
4	NC	Not connected
5	NC	Not connected
6	GO	Output voltage common
7	Vo+	Output voltage positive

Mechanical dimensions and Pin configuration

All dimensions in mm

Connector type: THT

Case: FMC 77x52x19



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