TDK·Lambda

MESSRS :

Reliability Test Data

CUSTOMER'S PRODUCT NAME:

TDK-Lambda PRODUCT NAME: DC/DC CONVERTER UNIT ALD-214012PJ111

TDK

TDK-Lambda Corporation

PREPARED BY	APPROVED BY	AUTHORIZED BY
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DWG.No.	CTR-4384-X

[1] Test Sample

ALD-214012PJ111 3pcs. for each

[2] Test Condition

Input Voltage	Vin	:	12.0 [V]	
Dimming Conditions	Vbr	:	0.0 [V]	Max. Brightness
	ADIM	:	0.0 [V]	Max. Brightness
Load	RL	:	280 [Ω]	

[3] Result

The test result is shown on the next page. There was no problem.
The measurement condition and Instrument depends on the following.

Measurement Condition

Input Voltage	Vin	:	12.0 [V]	
Dimming Conditions	Vbr	:	0.0 [V]	Max. Brightness
	ADIM	:	0.0 [V]	Max. Brightness
Load	RL	:	230 [Ω]	
Ambient temp	Ta	:	25 [°C]	

Measuring Instrument

Power supply	:	PAR160A（KIKUSUI) or equivalent
Inpur DC current meter	:	R6840（ADVANTEST） or equivalent
Output DC current meter	:	187 (FLUKE) or equivalent
Frequency counter	:	187 (FLUKE) or equivalent

[4] Test Item

Item	Condition	Judgement Standard
High Temperature Continuous Operation	85°C , 500hrs.	Electrical and apperance should be in the spec.
Heat Shock	-40°C <-> 85°C 30min./each 100cycles	
Humidity Environment Off and on Operation	60°C 90%R.H. On 1hr / Off 3hrs. 500cycles.	
Vibration	5~10Hz Amplitude 10mm 10~200Hz Accerarated Verocity 21.6m/s^2(2.2G) Log Sweep :10min. X,Y,Z direction 60min/each total 3hrs.	
Shock	588m/s^2 (60G) 11ms Half-sine wave once each axis X,Y,Z,-X,-Y,-Z total 6times	

No.	MATERIALS NAME	QU	MATERIAL	REMARK
PRODUCT NAME or MODEL,TITLE				
DC/DC CONVERTER UNIT ALD-214012PJ111				

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High Temperature Continuous Operation

	No.	Iin [A]	Iout1 [mA]	Iout2 [mA]	F [Hz]
Before Test	1	0.83	140.1	138.8	191.3
	2	0.85	141.2	141.0	192.4
	3	0.84	141.2	138.3	190.1
After Test	1	0.85	140.1	140.8	191.4
	2	0.87	141.9	141.6	192.6
	3	0.84	142.2	138.0	190.0
Supper		0.95	154.0	154.0	240.0
Slower		0.75	126.0	126.0	160.0
Judgement		OK	OK	OK	OK

Heat Shock

	No.	Iin [A]	Iout1-1 [mA]	Iout2-1 [mA]	F [Hz]
Before Test	4	0.86	142.7	141.5	188.7
	5	0.84	139.7	140.7	189.0
	6	0.84	141.8	143.3	193.2
After Test	4	0.86	142.9	142.1	188.8
	5	0.83	139.8	141.0	189.2
	6	0.86	141.8	143.8	193.3
Supper		0.95	154.0	154.0	240.0
Slower		0.75	126.0	126.0	160.0
Judgement		OK	OK	OK	OK

Humidity Environment Off and on Operation

	No.	Iin [A]	Iout1-1 [mA]	Iout2-1 [mA]	F [Hz]
Before Test	7	0.86	140.7	139.6	190.8
	8	0.86	141.0	140.8	191.6
	9	0.84	139.7	139.9	188.7
After Test	7	0.85	140.7	139.9	190.7
	8	0.86	140.3	140.8	191.6
	9	0.86	140.0	139.8	188.8
Supper		0.95	154.0	154.0	240.0
Slower		0.75	126.0	126.0	160.0
Judgement		OK	OK	OK	OK

Vibration -> Shock

	No.	Iin [A]	Iout1-1 [mA]	Iout2-1 [mA]	F [Hz]
Before Test	10	0.88	140.5	142.4	188.0
	11	0.87	141.5	141.5	191.0
	12	0.86	140.1	140.6	192.7
After Test	10	0.87	140.6	142.3	188.1
	11	0.86	141.5	141.4	191.0
	12	0.86	140.1	140.5	192.7
Supper		0.95	154.0	154.0	240.0
Slower		0.75	126.0	126.0	160.0
Judgement		OK	OK	OK	OK