



Test Report : DLC03A-15

3W DIP Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

DESIGN VERIFY TEST
OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-2 % ~ +2 % (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1 -0.16 % V2 -0.01 %	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1 16.7 mv V2 13.5 mv	P
3	LINE REGULATION	-0.2 % ~ +0.2 % (Max)	I/P:9VDC-18VDC O/P:FULL LOAD Ta:25°C	V1 -0.033 % ~ -0.053 % V2 -0.027 % ~ -0.053 %	P
4	LOAD REGULATION	-0.5 % ~ +0.5 % (Max)	I/P:12VDC O/P:MIN-FULL LOAD Ta:25°C	V1 -0.04 % ~ +0.03 % V2 -0.01 % ~ +0.03 %	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	81 % (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	81.40 %	P
2	DC CURRENT	313 mA / FULL LOAD (Max) 32 mA / NO LOAD (Max)	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	304.72 mA / FULL LOAD 29.937 mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	150%-250% (typ)	I/P:12VDC O/P:TESTING Ta:25°C	175%	P
2	SHORT PROTECTION	CONTINUOUS	I/P:18VDC O/P:FULL LOAD Ta:25°C	NO DAMAGE OK	P

SAFETY TEST
SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1500 VDC/min	I/P-O/P:1500 VDC/min Ta:25°C	I/P-O/P: 0.002mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>100MΩ NO DAMAGE	P

RELIABILITY TEST
ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT								
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 12HRS I/P:12VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 12HRS I/P:12VDC O/P:FULL LOAD Ta=71°C			P								
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>53.6°C</td> <td>96.6°C</td> </tr> </tbody> </table>		NO	Position	1	2	1	CASE	53.6°C	96.6°C		
NO	Position	1	2										
1	CASE	53.6°C	96.6°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:12VDC O/P: FULL LOAD Ta= -40°C	TEST : OK	P								

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F,NOTICE 2 ,PARTS COUNT TOTAL FAILURE RATE : 3.31777 M.T.B.F : 301407 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ALROY WANG	VINCENT ZENG