



# Test Report : SBTN01N-05

---

1W SMD Package DC-DC Unregulated Converter

## ■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

## ■ SAFETY TEST

Safety Test

## ■ RELIABILITY TEST

Environment Test

Other test

**DESIGN VERIFY TEST**
**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-2%~+2%	I/P:24VDC O/P:FULL LOAD Ta:25°C	-0.50%	P
2	RIPPLE & NOISE	75mVp-p (Max)	I/P:24VDC O/P:FULL LOAD Ta:25°C	12mVp-p	P
3	LINE REGULATION	-12% ~ +12% (Max)	I/P:21.6VDC ~26.4VDC O/P:FULL LOAD Ta:25°C	-10.69% ~ +11.09%	P
4	LOAD REGULATION	-8% ~ +8% (Max)	I/P:24VDCC O/P:FULL ~MIN LOAD Ta:25°C	-1.17 ~ 1.59%	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	77%	I/P:24VDC O/P:FULL LOAD Ta:25°C	78.26%	P
2	DC CURRENT	54mA FULL LOAD 11mA NO LOAD	I/P:24VDC O/P:FULL LOAD Ta:25°C	52mA 9mA	P

**PROTECTION FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SHORT PROTECTION	MOMENTARY	I/P:26.4VDC O/P:FULL LOAD Ta:25°C	MOMENTARY	P

**SAFETY TEST**
**SAFETY TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1.5KVDC/min	I/P-O/P:1.5KVDC/min Ta:25°C	I/P-O/P:0.02mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500VDC 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 : 4HRS I/P:24 VDC O/P:100% LOAD Ta=25°C 2. HI AMBIENT BURN-IN : 10HRS I/P: 24 VDC O/P:100% LOAD Ta=85°C			P										
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>P/N</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>CENTER</td> <td>39.9°C</td> <td>99.3°C</td> </tr> </tbody> </table>		NO	Position	P/N	1	2	1	CASE	CENTER	39.9°C	99.3°C		
NO	Position	P/N	1	2											
1	CASE	CENTER	39.9°C	99.3°C											
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 24VDC O/P : 100% LOAD Ta= -40°C	TEST : OK	P										

**OTHER**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 1.13390 M.T.B.F : 881914.32 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN	VINCENT ZENG