

MODEL : SDM30-24S12
OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 100 mVp-p (Max)	I/P: 24 VDC O/P:FULL LOAD Ta:25°C	V1: 11 mVp-p (Max)	P
2	OUTPUT VOLTAGE TOLERANCE	V1: +2%~ -2% (Max)	I/P: 18 VDC / 36 VDC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.06%~ -0.06%	P
3	LINE REGULATION	V1: +1%~ -1% (Max)	I/P: 18 VDC ~ 36 VDC O/P:FULL LOAD Ta:25°C	V1: 0%~ -0.06%	P
4	LOAD REGULATION	V1: +1%~ -1% (Max)	I/P: 24 VDC O/P:FULL -MIN LOAD Ta:25°C	V1: 0.06%~ -0.06%	P
5	OVER/UNDERSHOOT TEST	< ±5%	I/P: 24 VDC O/P:FULL LOAD Ta:25°C	TEST: < 5%	P
6	DYNAMIC LOAD	V1: 1200 mVp-p	I/P: 24 VDC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	422 mVp-p	P
7	TRIM OUTPUT	V1: 10% output voltage (Typ)	I/P: 24 VDC O/P:FULL LOAD Ta:25°C	V1: 13.075V	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	18VDC~ 36 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	15 V~ 36 V	P
			I/P: LOW-LINE-3V= 15 VDC HIGH-LINE+3%= 37 VDC O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST: OK	
2	EFFICIENCY	82% (TYP)	I/P: 24 VDC O/P:FULL LOAD Ta:25°C	82.14 %	P
3	INPUT CURRENT	24 V/ 2 A (TYP)	I/P: 24 VDC O/P:FULL LOAD Ta:25°C	I =1.47 A	P
4	IDEL CURRENT	30mA / 24 VDC	I/P: 24 VDC O/P:Min LOAD Ta:25°C	I = 18.96 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	> 105 %	I/P: 24 VDC O/P: TESTING Ta: 25°C	110%/ 24 VDC Over power limiting, recovers automatically after fault condition is removed	P
2	OVER VOLTAGE PROTECTION	CH1: 13.8V~ 18.0 V	I/P: 24 VDC I/P: 18 VAC O/P: MIN LOAD Ta: 25°C	16.6V/ 24 VDC 16.6V/ 18 VDC Shut off o/p voltage, clamping by zener diode	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 36 VDC O/P: 100% LOAD Ta: 25°C	NO DAMAGE Constant current limiting, recovers automatically after fault condition is removed	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	ON/OFF CONTROL	Logic * 1 * or Open POWER ON Logic * 0 * or Short POWER OFF	I/P: 24VDC/O/P: FULL LOAD Ta: 25°C	Logic * 1 * or Open POWER ON Logic * 0 * or Short POWER OFF	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	MODEL : SDM30-24S5 1. ROOM AMBIENT BURN-IN : 87 HRS I/P: 24 VDC O/P: 100% LOAD Ta= 27.2 °C 2. HIGH AMBIENT BURN-IN : 15 HRS I/P: 24 VDC O/P: 100% LOAD Ta= 48.6 °C			P
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 24 VDC O/P: 120 % LOAD Ta:25°C	TEST : OK	P
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 24 VDC O/P: 100 % LOAD Ta= -8.8 °C	TEST : OK	P
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 25 °C NO DAMAGE	I/P: 36 VDC O/P:FULL LOAD Ta= 25 °C HUMIDITY= 95 %R.H	TEST : OK	P
5	TEMPERATURE COEFFICIENT	± 0.03 %(0-50°C)	I/P: 24 VDC O/P:FULL LOAD	± 0.01 %(0-50°C)	P



SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 1 KVDC/min	I/P-O/P: 1.2 KVDC/min Ta:25°C	I/P-O/P: 0.002 mA 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: 1.2G Ω NO DAMAGE	P

M.T.B.F & LIFE CYCLE CALCULATION

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 322.4K HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2000/09/09	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2002/12/7	PRODUCT SAMPLE A211A14	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023