



TEST DATA OF MHFS31209

Regulated DC Power Supply
May 25, 2020

Approved by : Kenichi Tsukada
Kenichi Tsukada Design Manager

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COSEL CO.,LTD.

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Model		MHFS31209		Temperature 25°C																																																																														
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Model		MHFS31209	Temperature		25°C																																
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Object		+9V0.33A																																			
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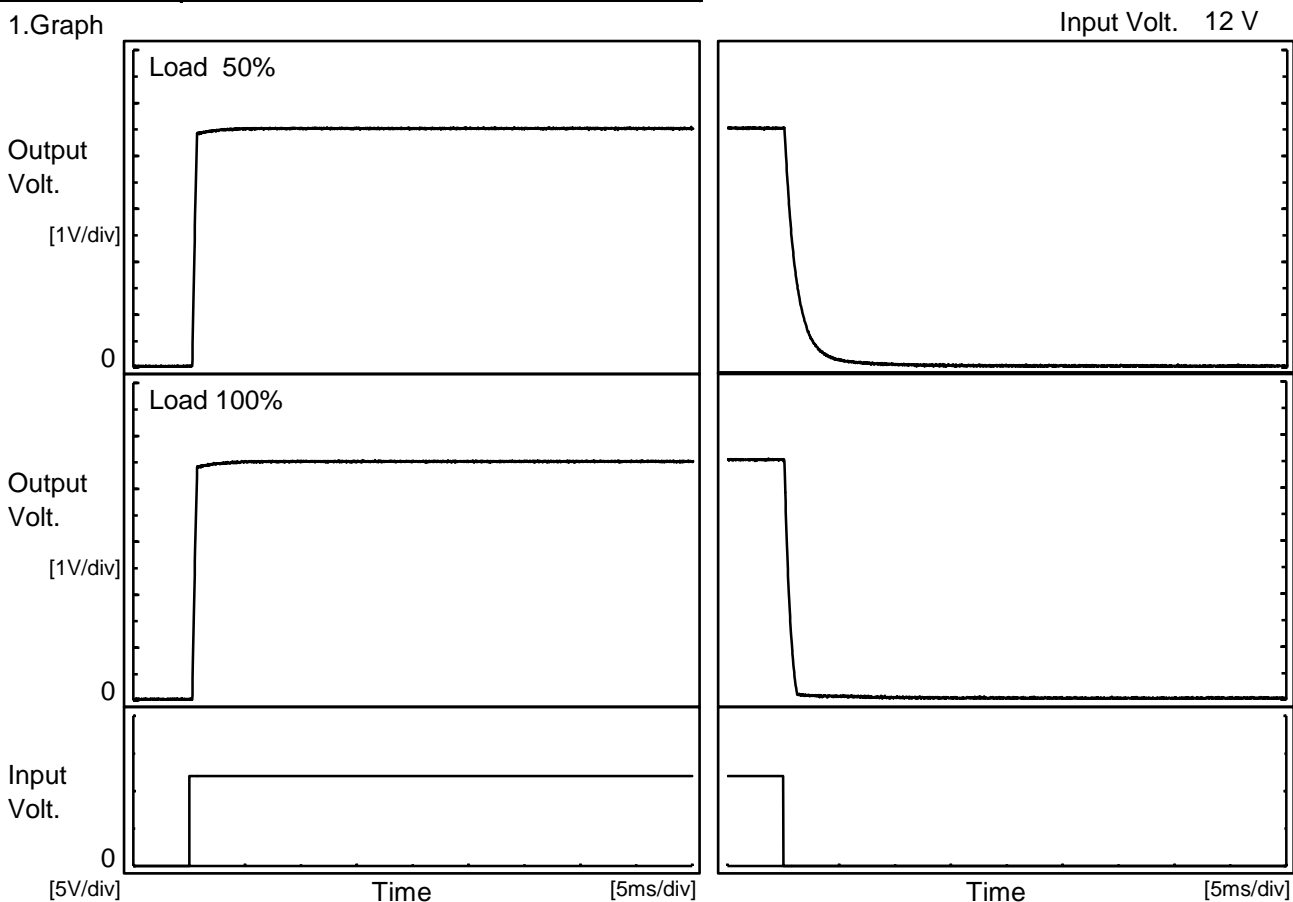
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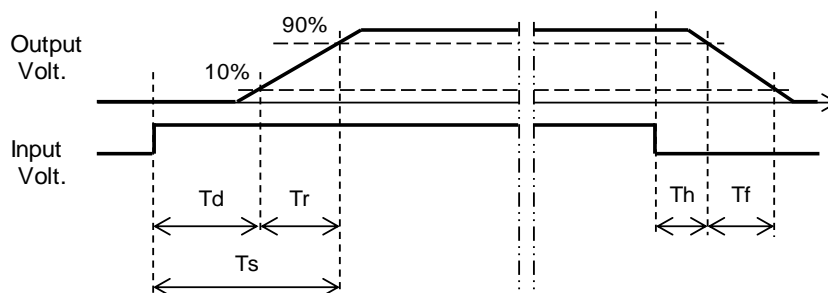
Model	MHFS31209	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+9V0.33A		

1.Graph



2.Values

		[ms]				
Load	Time	T _d	T _r	T _s	T _h	T _f
50 %		0.3	0.3	0.6	0.2	2.5
100 %		0.3	0.4	0.7	0.2	0.9



Model		MHFS31209	Temperature		25°C																																																																																			
Item		Overcurrent Protection	Testing Circuitry		Figure A																																																																																			
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		Testing Circuitry Figure A
Model	MHFS31209	
Item	Ambient Temperature Drift	
Object	+9V0.33A	

1.Values

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 4.5V	Input Volt. 5V	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V
-40	8.984	8.984	8.985	8.985	8.986
25	9.028	9.028	9.029	9.029	9.029
75	9.034	9.035	9.036	9.036	9.035

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+9V0.33A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	3.7	3.6
25	3.6	3.6
75	3.5	3.5

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Object		+9V0.33A																																																																															
1.Graph		<div><div><div>—△—</div>Input Volt. 4.5V</div><div><div>---□---</div>Input Volt. 5V</div><div><div>-·-*·-</div>Input Volt. 9V</div><div><div>-·-○-</div>Input Volt. 12V</div><div><div>---◇---</div>Input Volt. 18V</div></div> <div>Switching Frequency [kHz]</div> <div>Load Current [A]</div>	2.Values																																																																														
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="5">Switching Frequency [kHz]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th></tr><tr><td>0.000</td><td>1287</td><td>1328</td><td>1395</td><td>1484</td><td>1520</td></tr><tr><td>0.066</td><td>827</td><td>882</td><td>1178</td><td>1232</td><td>1395</td></tr><tr><td>0.132</td><td>591</td><td>645</td><td>922</td><td>989</td><td>1058</td></tr><tr><td>0.198</td><td>467</td><td>504</td><td>753</td><td>819</td><td>900</td></tr><tr><td>0.264</td><td>384</td><td>419</td><td>640</td><td>705</td><td>790</td></tr><tr><td>0.297</td><td>348</td><td>382</td><td>599</td><td>665</td><td>742</td></tr><tr><td>0.330</td><td>321</td><td>356</td><td>554</td><td>621</td><td>703</td></tr><tr><td>0.363</td><td>298</td><td>328</td><td>523</td><td>598</td><td>680</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>	Load Current [A]	Switching Frequency [kHz]					Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	0.000	1287	1328	1395	1484	1520	0.066	827	882	1178	1232	1395	0.132	591	645	922	989	1058	0.198	467	504	753	819	900	0.264	384	419	640	705	790	0.297	348	382	599	665	742	0.330	321	356	554	621	703	0.363	298	328	523	598	680	--	-	-	-	-	-	--	-	-	-	-	-	--	-	-	-	-	-		
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Note: Slanted line shows the range of the rated load current.																																																																																	
When load current is low, MH operates intermittently, so switching frequency would not become constant.																																																																																	

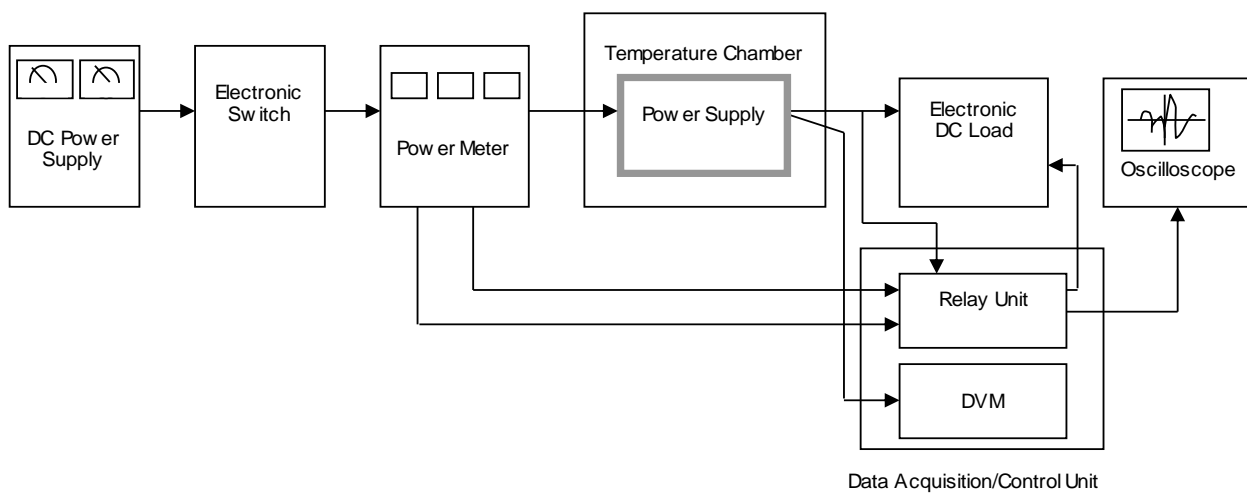


Figure A

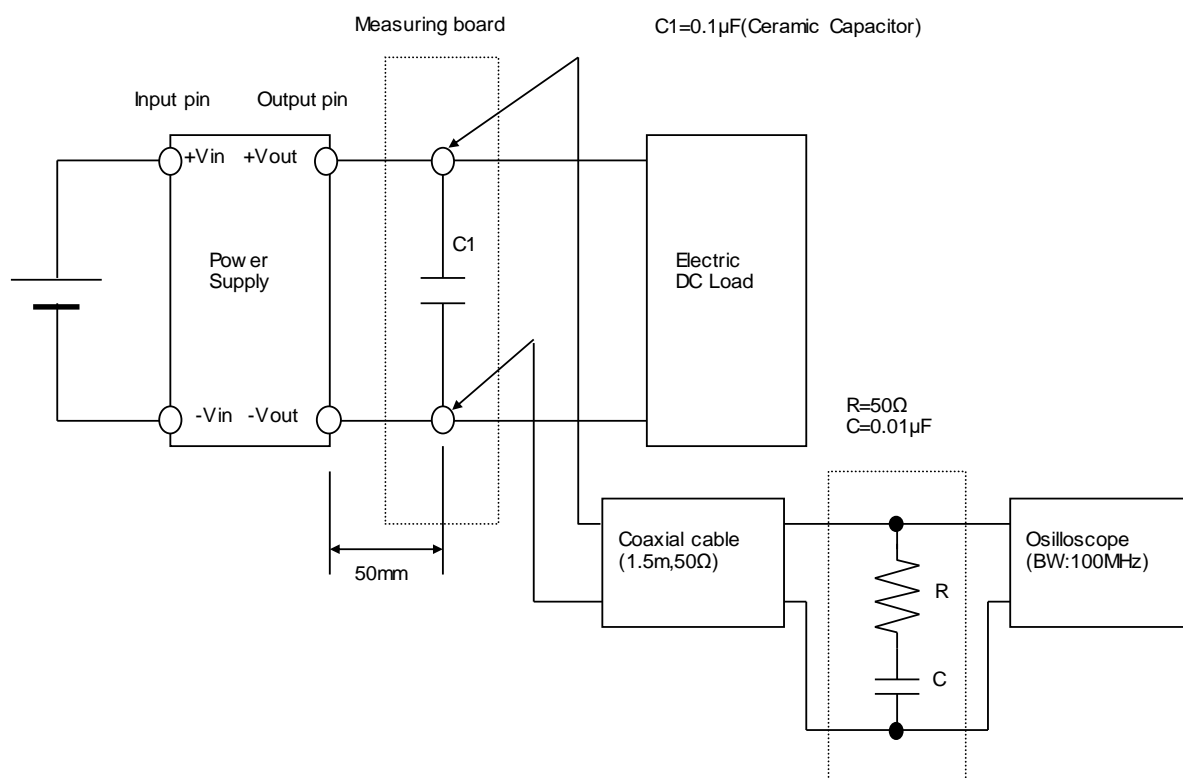


Figure B