For Reference

TEST DATA OF MUS3053R3

Regulated DC Power Supply
February 3, 2025

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COSEL CO.,LTD.

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CONTENTS

1.Input Current (by Load Current) ・・・・・・・・・・・・・・・・・・・・・・・・ 1
2.Efficiency (by Load Current) ・・・・・・・・・・・・・・・・・・・・・・・・ 2
3.Line Regulation ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 3
4.Load Regulation ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 4
5.Ripple-Noise ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 4
6.Dynamic Load Response ・・・・・・・・・・・・・・・・・・・・・・・・・・ 5
7.Rise and Fall Time ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 6
8.Overcurrent Protection ・・・・・・・・・・・・・・・・・・・・・・・・・・・ 7
9.Ambient Temperature Drift ・・・・・・・・・・・・・・・・・・・・・・・・・ 8
10.Minimum Input Voltage for Regulated Output Voltage ・・・・・・・・・・・ 8
11.Figure of Testing Circuitry ・・・・・・・・・・・・・・・・・・・・・・・・・ 9
(Final Page 9)

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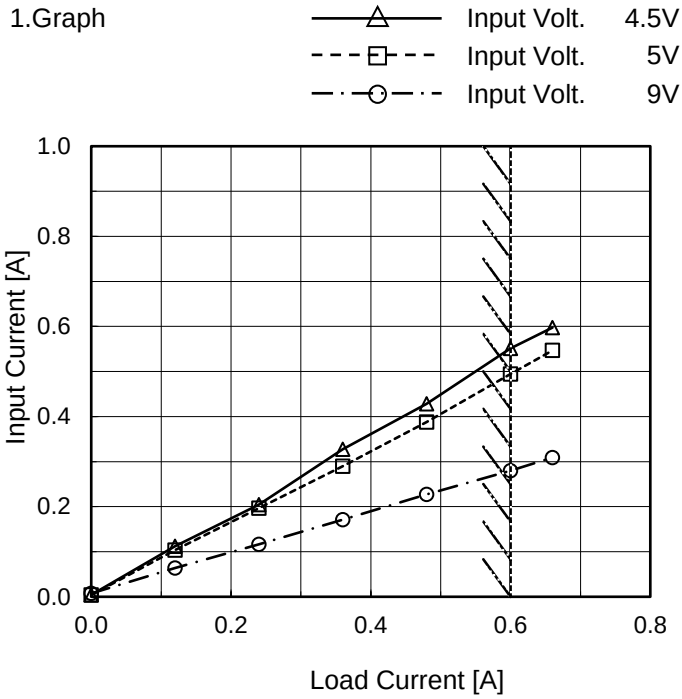
Model	MUS3053R3
Item	Input Current (by Load Current)
Object	————————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Input Current [A]		
	Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
0.00	0.004	0.004	0.008
0.12	0.112	0.104	0.064
0.24	0.205	0.197	0.117
0.36	0.327	0.290	0.171
0.48	0.429	0.388	0.227
0.60	0.551	0.494	0.280
0.66	0.598	0.547	0.309
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--	-	-	-
--	-	-	-
--	-	-	-

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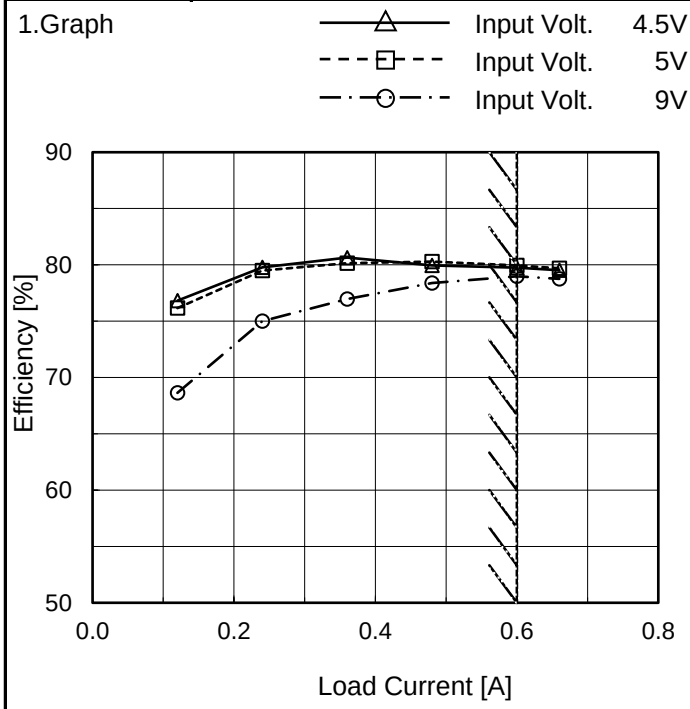
Model	MUS3053R3
Item	Efficiency (by Load Current)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

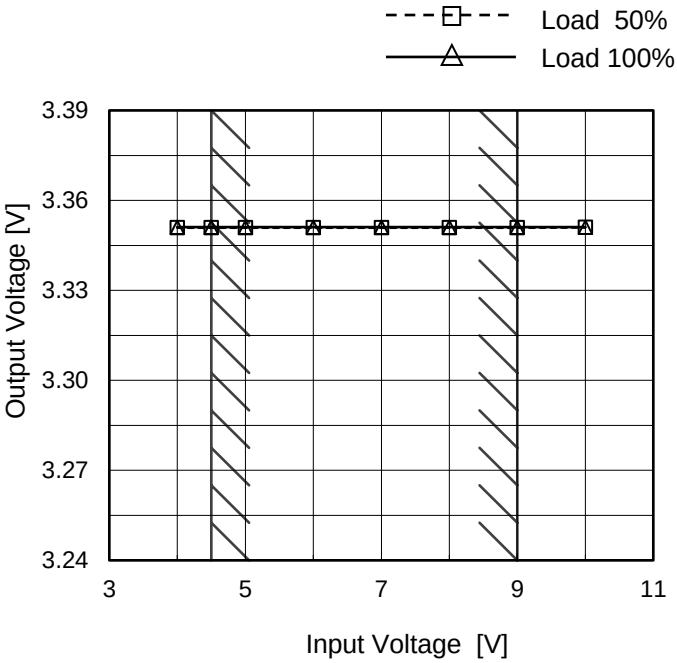
2.Values

Load Current [A]	Efficiency [%] Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
0.00	-	-	-
0.12	76.8	76.2	68.6
0.24	79.8	79.5	75.0
0.36	80.6	80.2	77.0
0.48	80.0	80.3	78.4
0.60	79.8	79.9	79.0
0.66	79.5	79.7	78.7
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

Model	MUS3053R3
Item	Line Regulation
Object	+3.3V0.6A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
4.0	3.351	3.351
4.5	3.351	3.351
5.0	3.351	3.351
6.0	3.351	3.351
7.0	3.351	3.351
8.0	3.351	3.351
9.0	3.351	3.351
10.0	3.351	3.351
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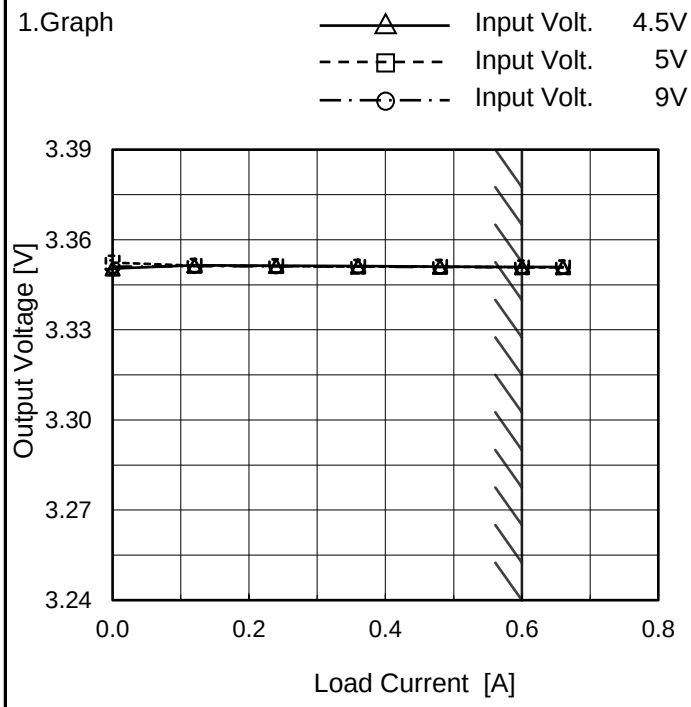
Model	MUS3053R3
Item	Load Regulation
Object	+3.3V0.6A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
0.00	3.350	3.352	3.351
0.12	3.352	3.351	3.351
0.24	3.351	3.351	3.351
0.36	3.351	3.351	3.351
0.48	3.351	3.351	3.351
0.60	3.351	3.351	3.351
0.66	3.351	3.351	3.351
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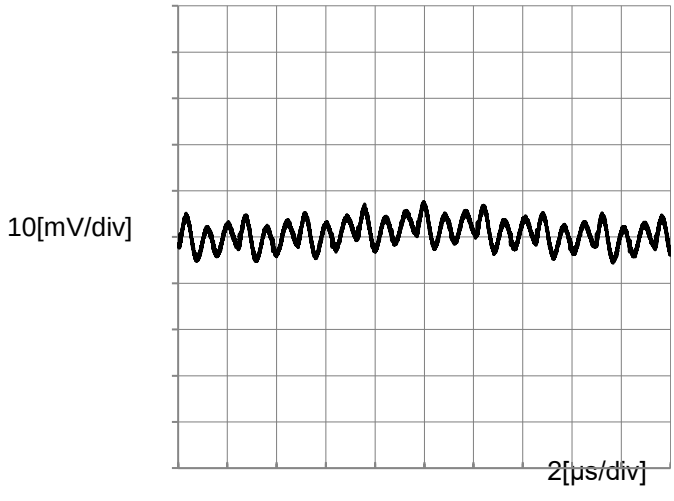
Item	Ripple-Noise
Object	+3.3V0.6A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 5V
Load 100%



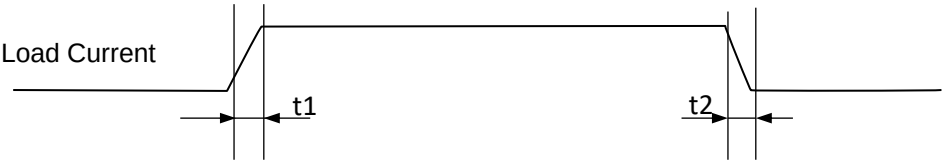
BC-12053

Model	MUS3053R3	
Item	Dynamic Load Response	Temperature 25°C Testing Circuitry Figure A
Object	+3.3V0.6A	

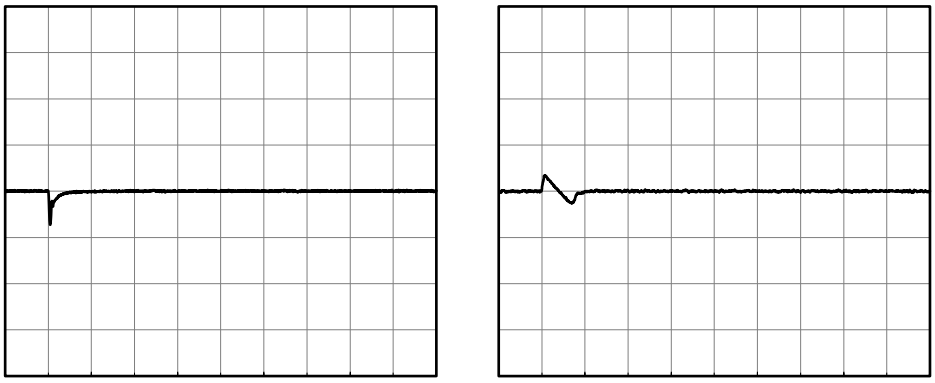
Input Volt. 5 V

Cycle 1000 ms

Response. t1=t2=50µs. Typ



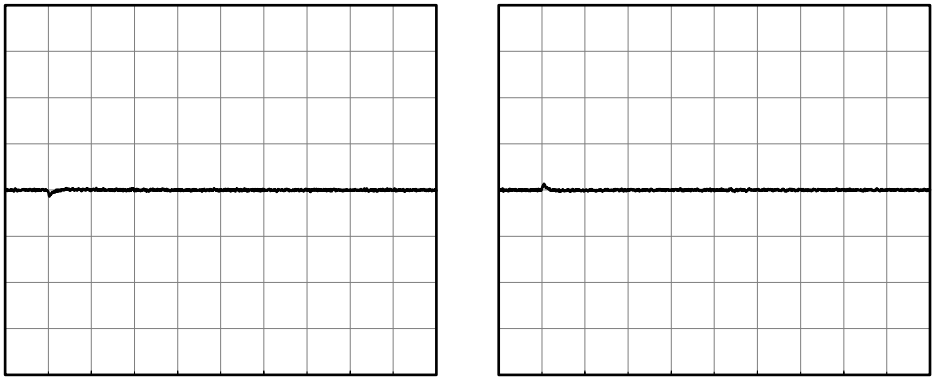
Load 0%(0A) ←→
Load 100%(0.6A)



200[mV/div]

1[ms/div] 1[ms/div]

Load 50%(0.3A) ←→
Load 100%(0.6A)



200[mV/div]

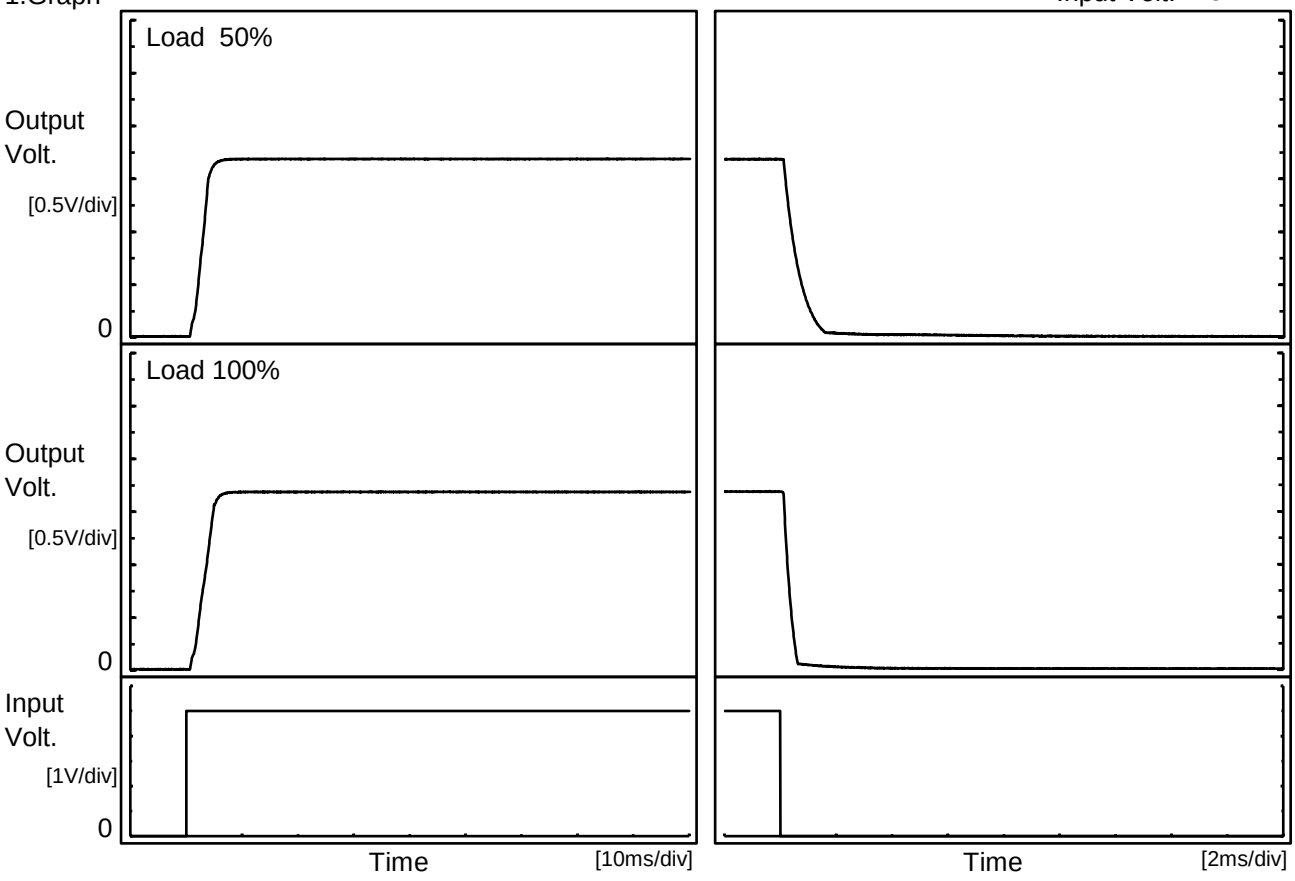
1[ms/div] 1[ms/div]

Model	MUS3053R3
Item	Rise and Fall Time
Object	+3.3V0.6A

Temperature 25°C
Testing Circuitry Figure A

1.Graph

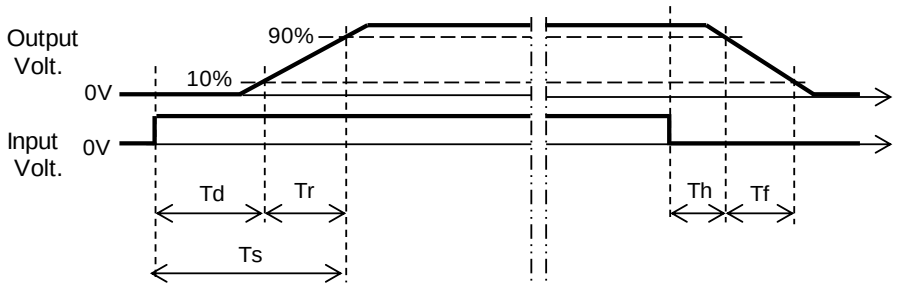
Input Volt. 5 V



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	1.3	2.7	4.0	0.2	1.0
100 %	1.5	3.4	4.9	0.1	0.4



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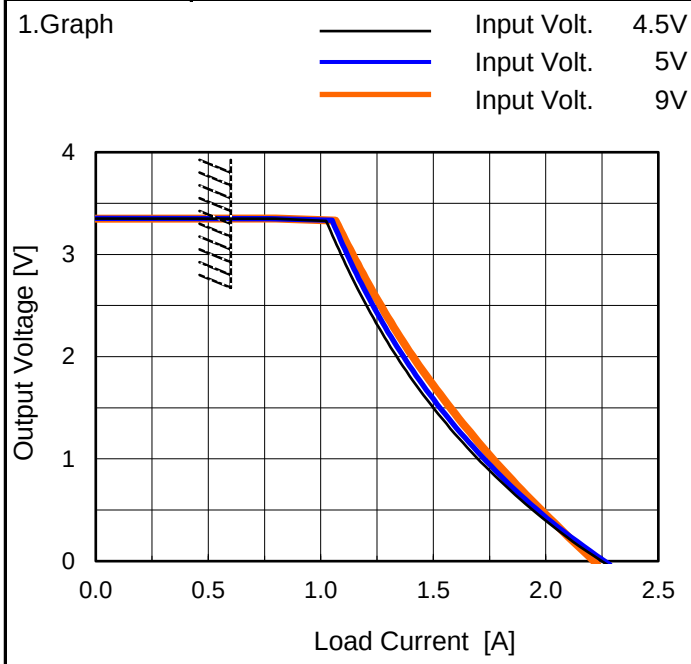
Model	MUS3053R3
Item	Overcurrent Protection
Object	+3.3V0.6A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
3.14	1.06	1.09	1.11
2.97	1.09	1.12	1.14
2.64	1.16	1.19	1.22
2.31	1.25	1.27	1.31
1.98	1.34	1.37	1.41
1.65	1.44	1.47	1.51
1.32	1.56	1.59	1.63
0.99	1.69	1.72	1.76
0.66	1.84	1.86	1.89
0.33	2.01	2.03	2.04
0.00	2.27	2.29	2.23
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Model	MUS3053R3	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+3.3V0.6A	

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 4.5V	Input Volt. 5V	Input Volt. 9V
-40	3.334	3.335	3.335
25	3.352	3.352	3.352
85	3.351	3.350	3.350

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+3.3V0.6A	

1.Values

Ambient Temperature[℃]	Input Voltage [V]	
	Load 50%	Load 100%
-40	3.2	3.2
25	3.1	3.0
85	3.1	3.1

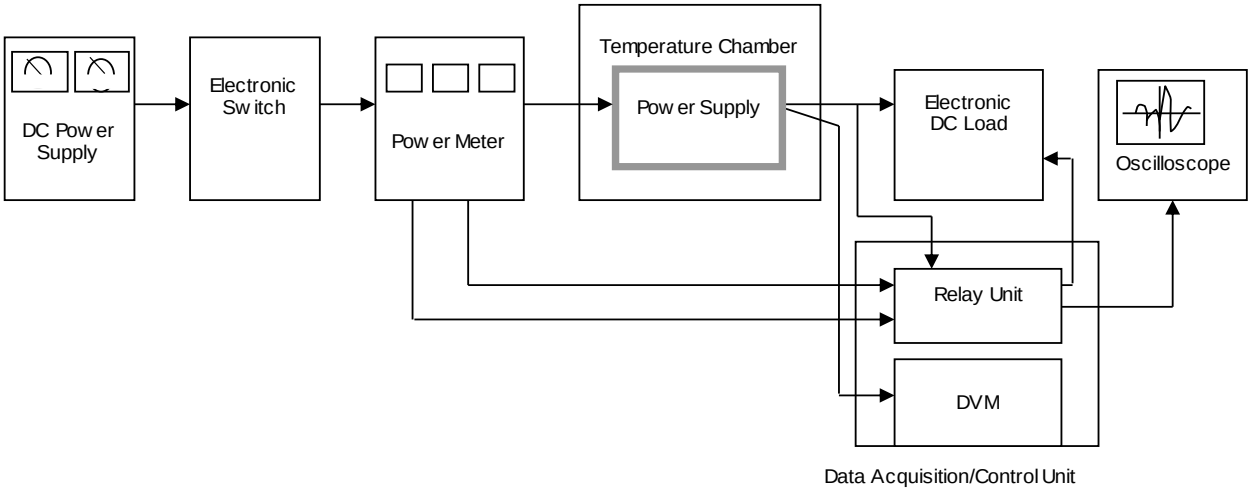

Figure A

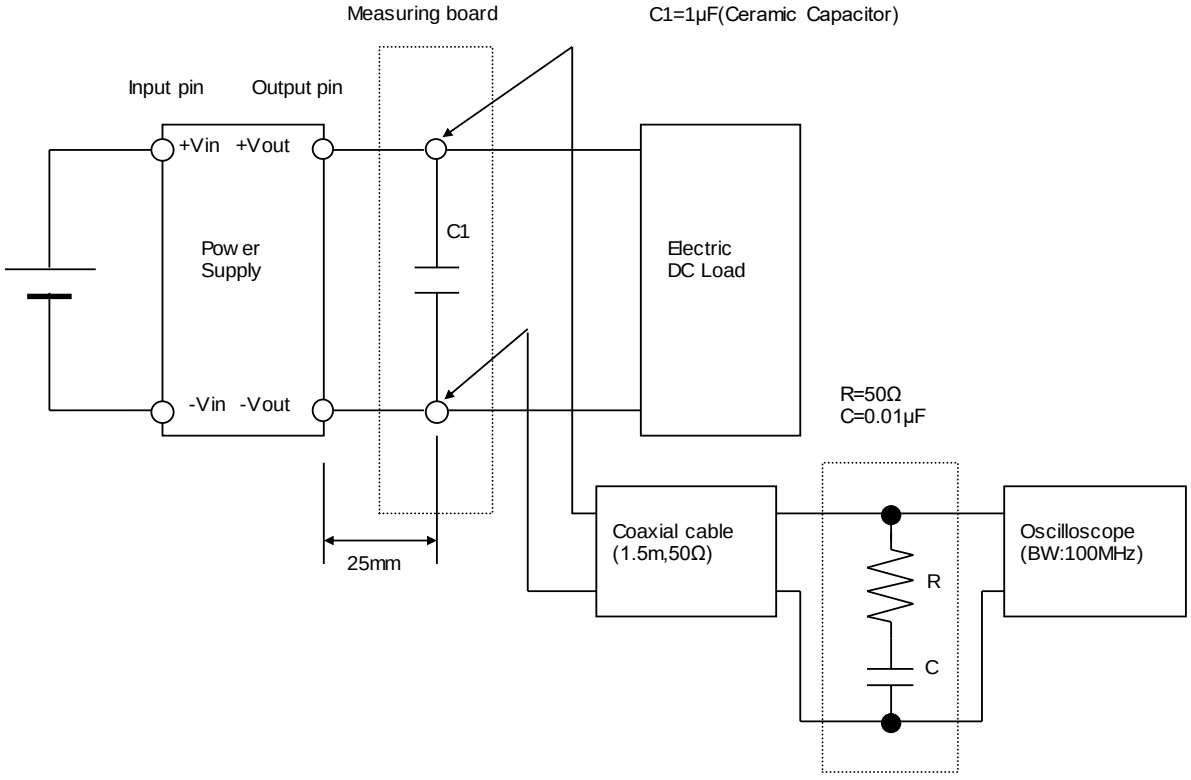

Figure B