

# TEST DATA OF MGS15483R3

Regulated DC Power Supply  
September 7, 2010

Approved by : Kazunari Asano  
Kazunari Asano Design Manager

Prepared by : Hidetaka Kobayashi  
Hidetaka Kobayashi Design Engineer

**COSEL CO.,LTD.**

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1.Graph	<p style="text-align: center;">—△— Load 100%        - - -□--- Load 50%        - - -○--- Load 0%</p> <p>The graph plots Input Current [A] on the Y-axis (0.00 to 1.00) against Input Voltage [V] on the X-axis (0 to 80). Three data series are shown: Load 100% (solid triangles), Load 50% (dashed squares), and Load 0% (dotted circles). A vertical slanted line indicates the rated input voltage range.</p>																																																																																	
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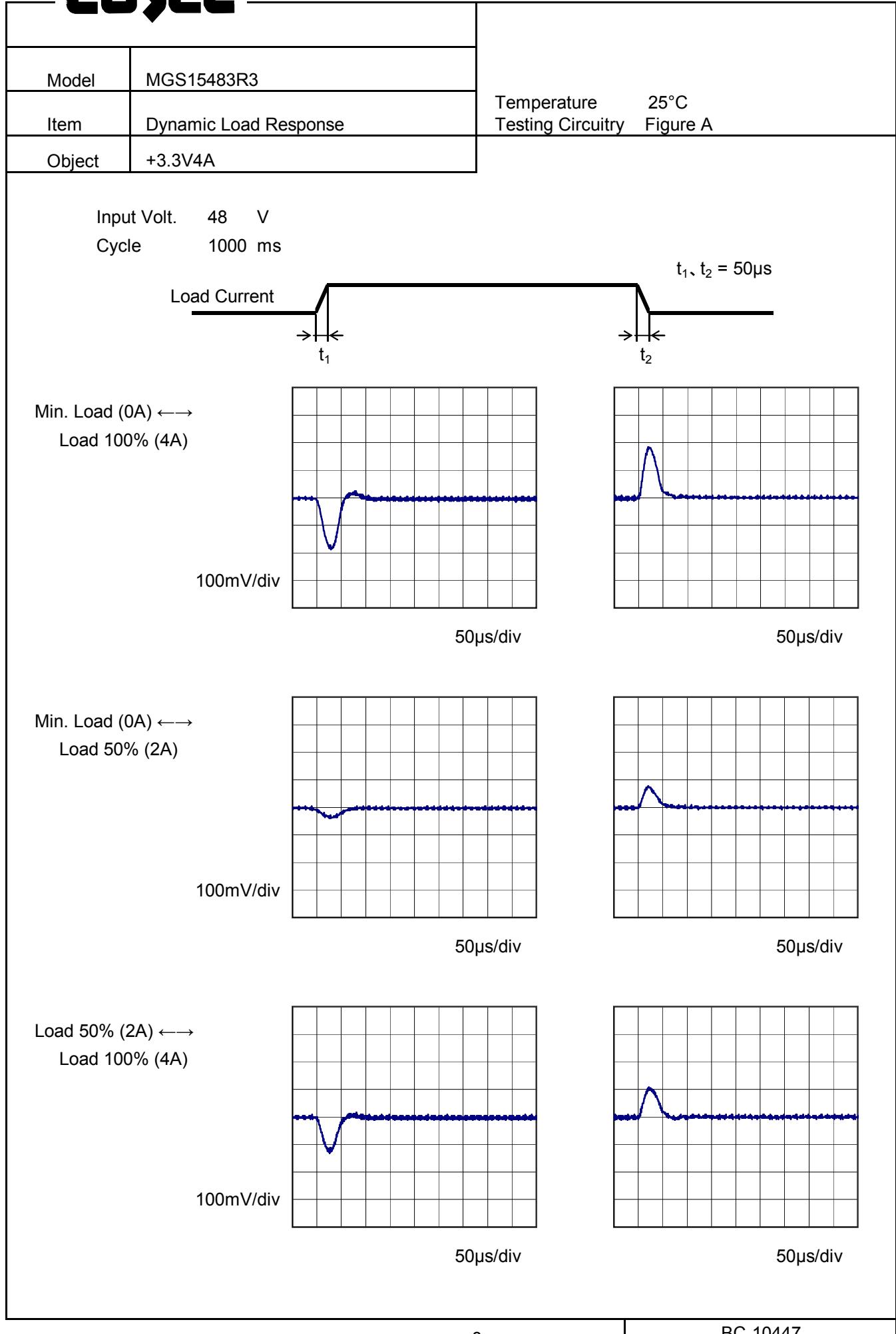
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Model	MGS15483R3	Temperature Testing Circuitry      25°C Figure A																																																				
Item	Load Regulation																																																					
Object	+3.3V4A																																																					
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**COSEL**



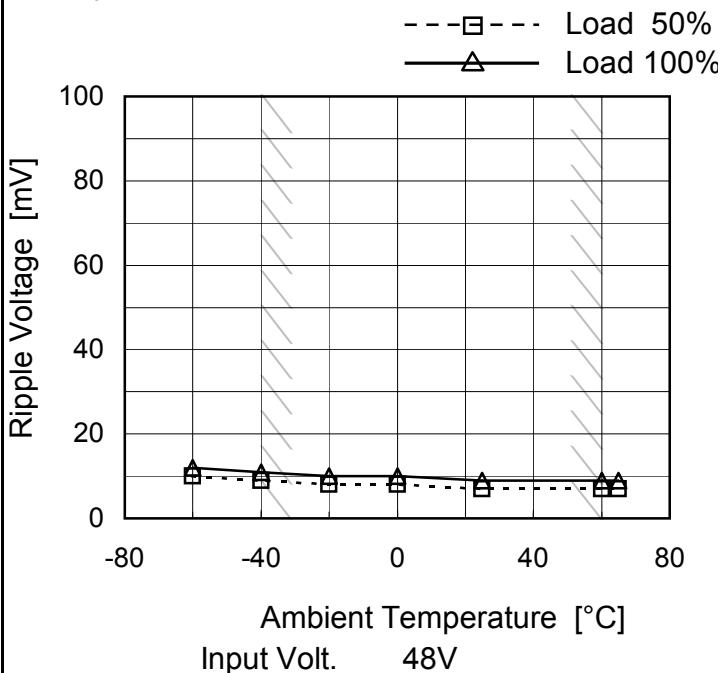
Model	MGS15483R3																																							
Item	Ripple Voltage (by Load Current)	Temperature      25°C Testing Circuitry      Figure B																																						
Object	+3.3V4A																																							
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<p>Fig.Complex Ripple Wave Form</p>																																								

Model	MGS15483R3																																							
Item	Ripple-Noise	Temperature      25°C Testing Circuitry      Figure B																																						
Object	+3.3V4A																																							
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Model	MGS15483R3
Item	Ripple Voltage (by Ambient Temp.)
Object	+3.3V4A

Testing Circuitry Figure B

## 1. Graph



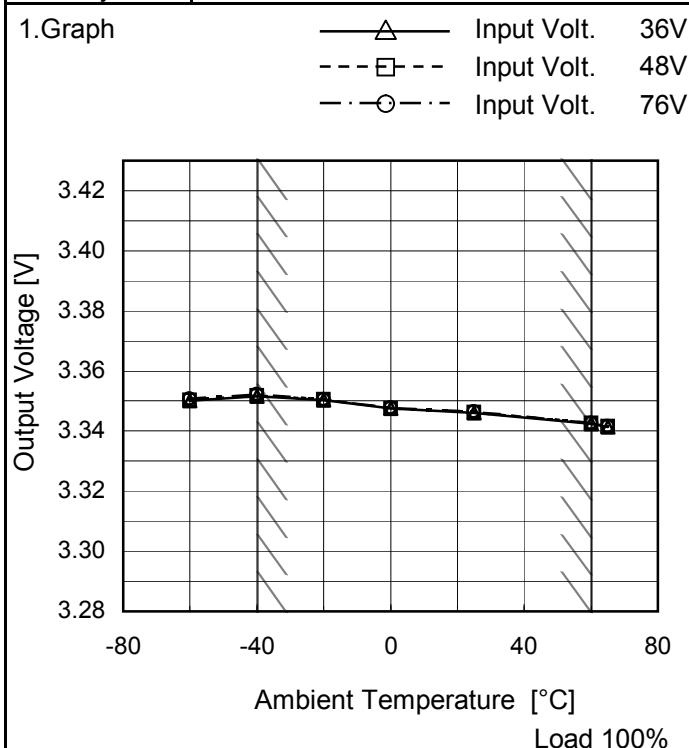
## 2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-60	10	12
-40	9	11
-20	8	10
0	8	10
25	7	9
60	7	9
65	7	9
--	-	-
--	-	-
--	-	-
--	-	-

Measured by 100 MHz Oscilloscope.

Note: Slanted line shows the range of the rated ambient temperature.

Model	MGS15483R3
Item	Ambient Temperature Drift
Object	+3.3V4A



Note: Slanted line shows the range of the rated ambient temperature.

### Testing Circuitry Figure A

### 2.Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
-60	3.350	3.350	3.351
-40	3.352	3.352	3.352
-20	3.350	3.351	3.351
0	3.348	3.348	3.348
25	3.346	3.346	3.346
60	3.343	3.343	3.343
65	3.341	3.342	3.342
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-



Model	MGS15483R3	Testing Circuitry Figure A
Item	Output Voltage Accuracy	
Object	+3.3V4A	

### 1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -40 - 60°C

Input Voltage : 36 - 76V

Load Current : 0 - 4A

\* Output Voltage Accuracy =  $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

$$\text{* Output Voltage Accuracy (Ration)} = \frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$$

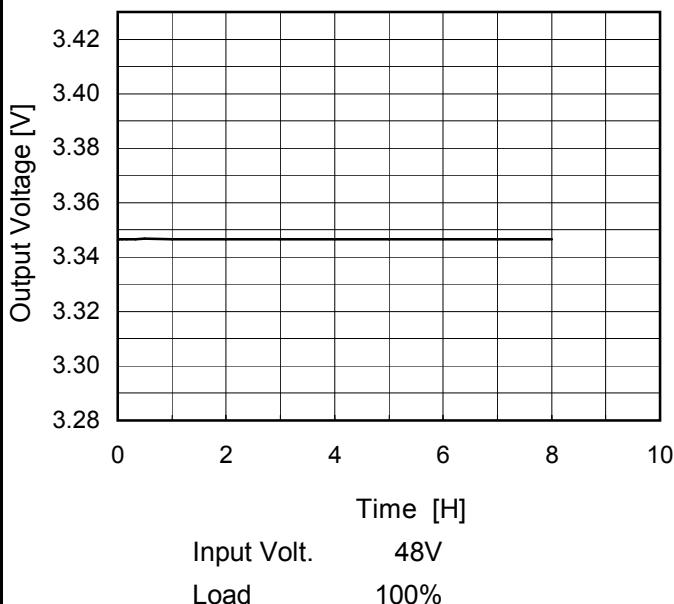
### 2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	-40	36	0	3.354	±6	±0.2
Minimum Voltage	60	36	4	3.343		

**COSEL**

Model	MGS15483R3
Item	Time Lapse Drift
Object	+3.3V4A

1. Graph



Temperature 25°C  
Testing Circuitry Figure A

2. Values

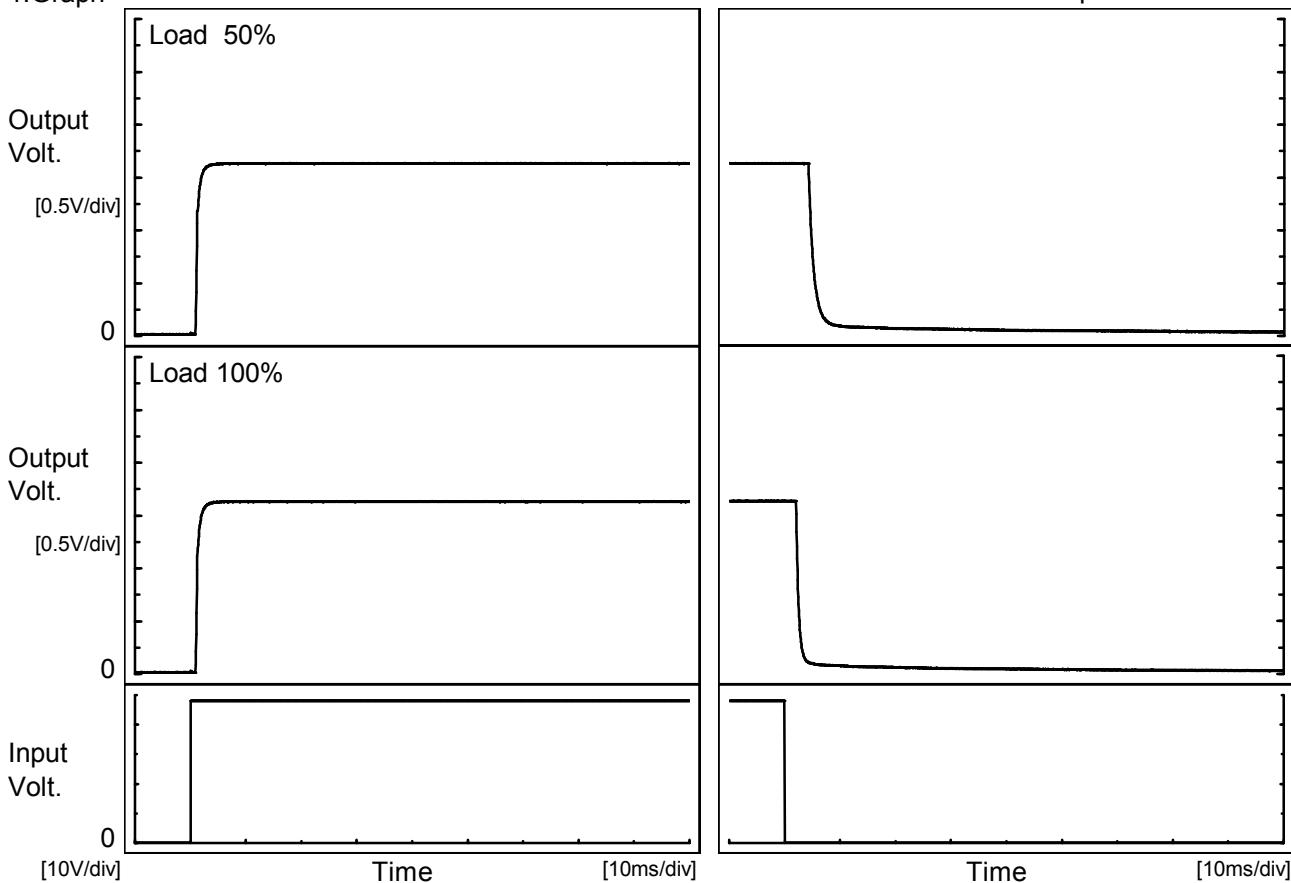
Time since start [H]	Output Voltage [V]
0.0	3.347
0.5	3.347
1.0	3.347
2.0	3.347
3.0	3.347
4.0	3.347
5.0	3.347
6.0	3.347
7.0	3.347
8.0	3.347

**COSEL**

Model	MGS15483R3
Item	Rise and Fall Time
Object	+3.3V4A

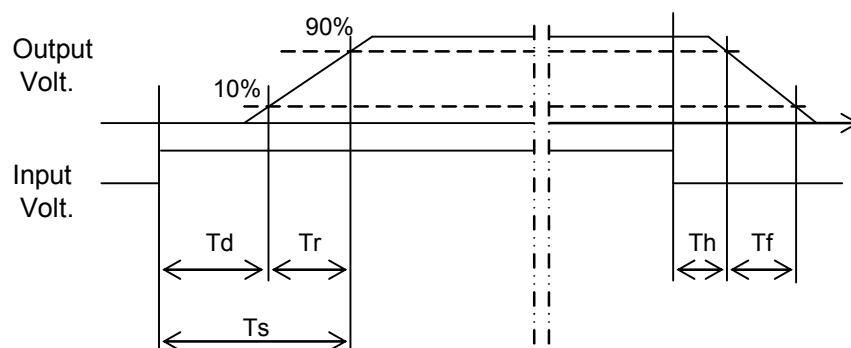
Temperature 25°C  
Testing Circuitry Figure A

## 1. Graph



## 2. Values

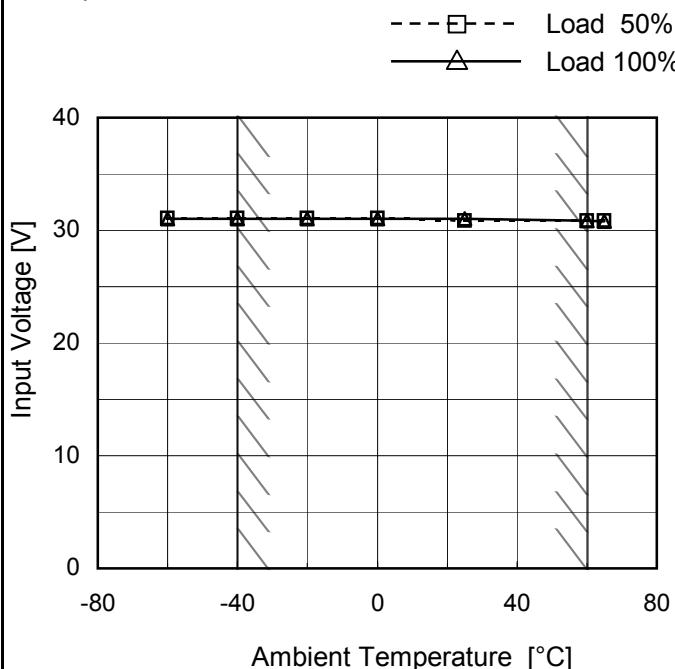
Load	Time	Td	Tr	Ts	Th	Tf
50 %		1.0	1.0	2.0	4.3	2.6
100 %		1.0	1.0	2.0	2.1	1.3



Model	MGS15483R3
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+3.3V4A

## Testing Circuitry Figure A

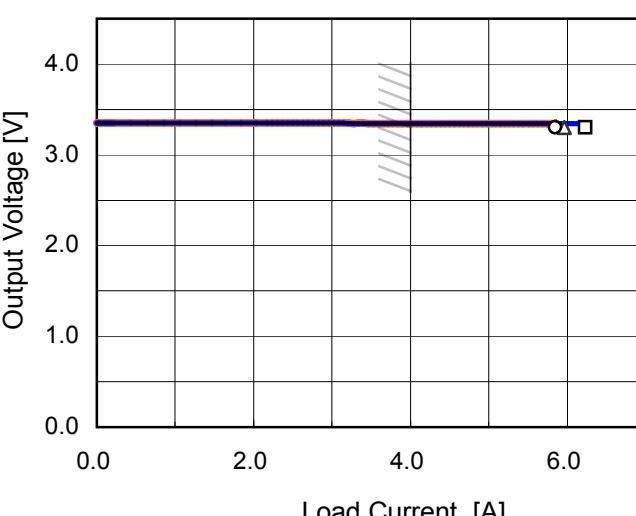
## 1. Graph



## 2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	31.1	31.1
-40	31.1	31.1
-20	31.1	31.1
0	31.1	31.1
25	30.9	31.1
60	30.9	30.9
65	30.9	30.9
--	-	-
--	-	-
--	-	-
--	-	-

Note: Slanted line shows the range of the rated ambient temperature.

Model	MGS15483R3	Temperature Testing Circuitry 25°C Figure A																																																							
Item	Overshoot Protection																																																								
Object	+3.3V4A																																																								
1. Graph	<p>—△— Input Volt. 36V      —□— Input Volt. 48V      —○— Input Volt. 76V</p>  <p>Output Voltage [V]</p> <p>Load Current [A]</p>	2. Values																																																							
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COSEL

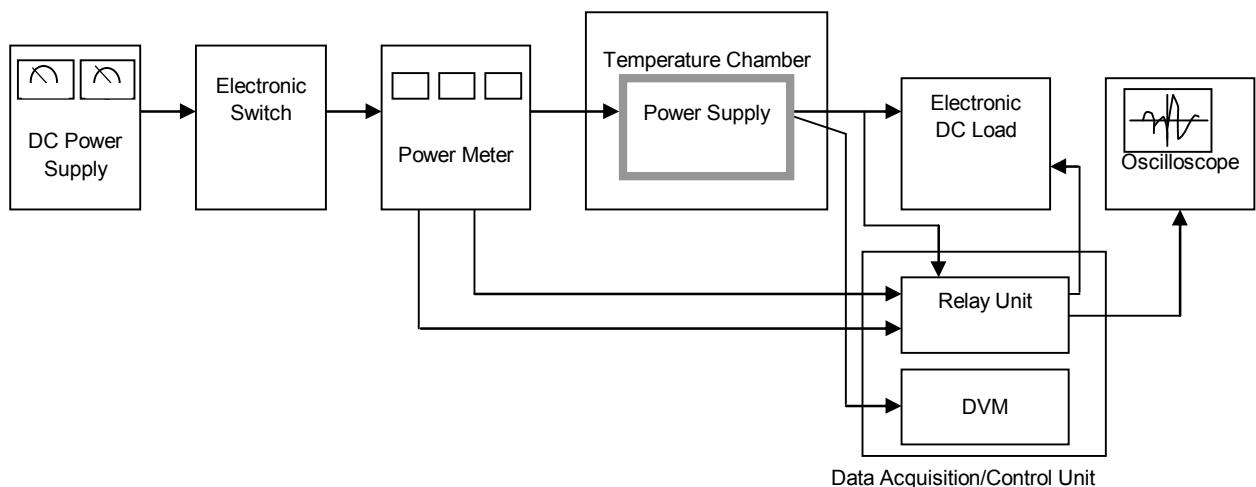


Figure A

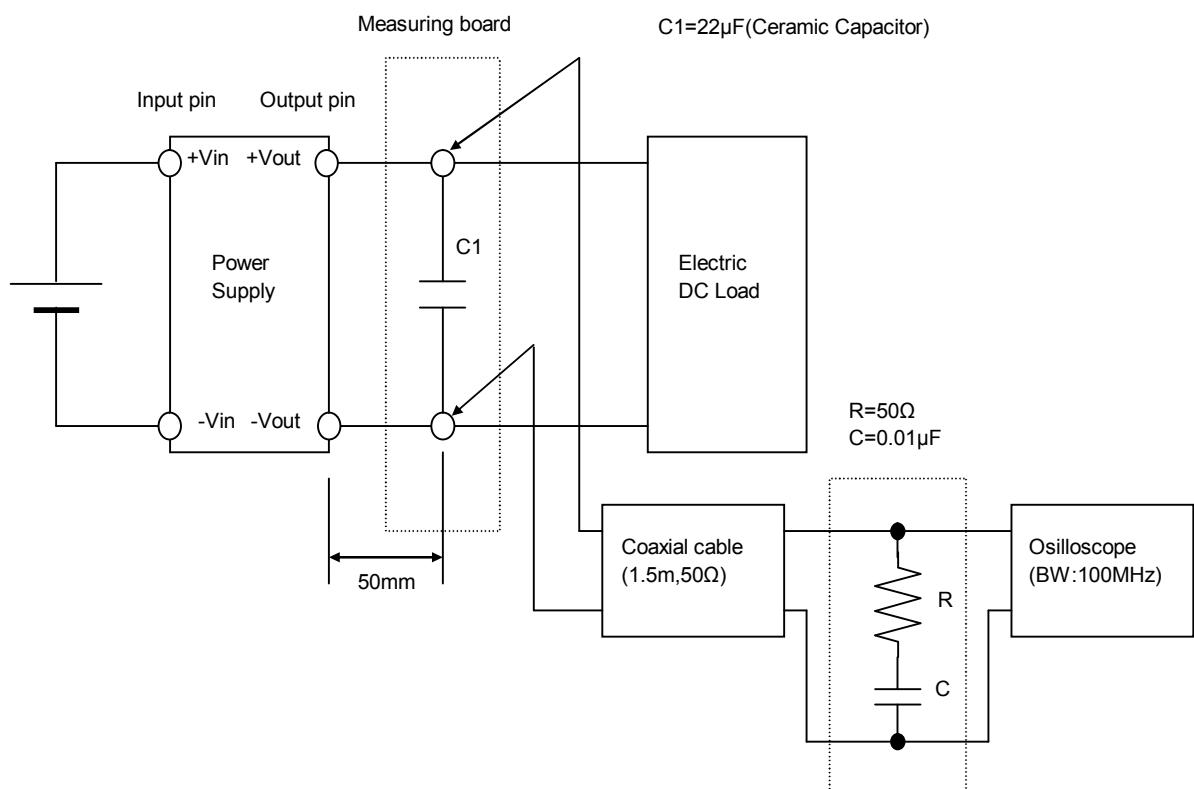


Figure B (Ripple and Ripple noise Characteristic)