

# TEST DATA OF SUTS62405

Regulated DC Power Supply  
March 13, 2009

Approved by : Kazunari Asano  
Kazunari Asano Design Manager

Prepared by : Sho Saito  
Sho Saito Design Engineer

**COSEL CO.,LTD.**

## CONTENTS

1. Input Current (by Input Voltage) · · · · ·	1
2. Input Current (by Load Current) · · · · ·	2
3. Input Power (by Load Current) · · · · ·	3
4. Efficiency (by Input Voltage) · · · · ·	4
5. Efficiency (by Load Current) · · · · ·	5
6. Line Regulation · · · · ·	6
7. Load Regulation · · · · ·	7
8. Dynamic Load Response · · · · ·	8
9. Ripple Voltage (by Load Current) · · · · ·	9
10. Ripple-Noise · · · · ·	10
11. Ripple Voltage (by Ambient Temperature) · · · · ·	11
12. Ambient Temperature Drift · · · · ·	12
13. Output Voltage Accuracy · · · · ·	13
14. Time Lapse Drift · · · · ·	14
15. Rise and Fall Time · · · · ·	15
16. Minimum Input Voltage for Regulated Output Voltage · · · · ·	16
17. Overcurrent Protection · · · · ·	17
18. Figure of Testing Circuitry · · · · ·	18

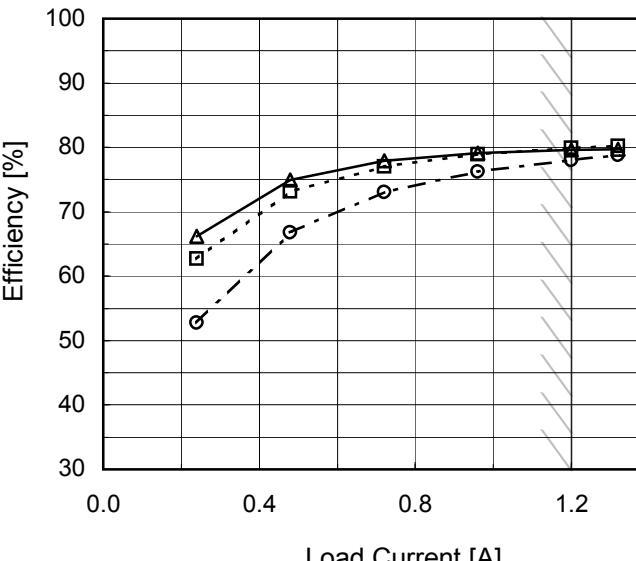
(Final Page 18)

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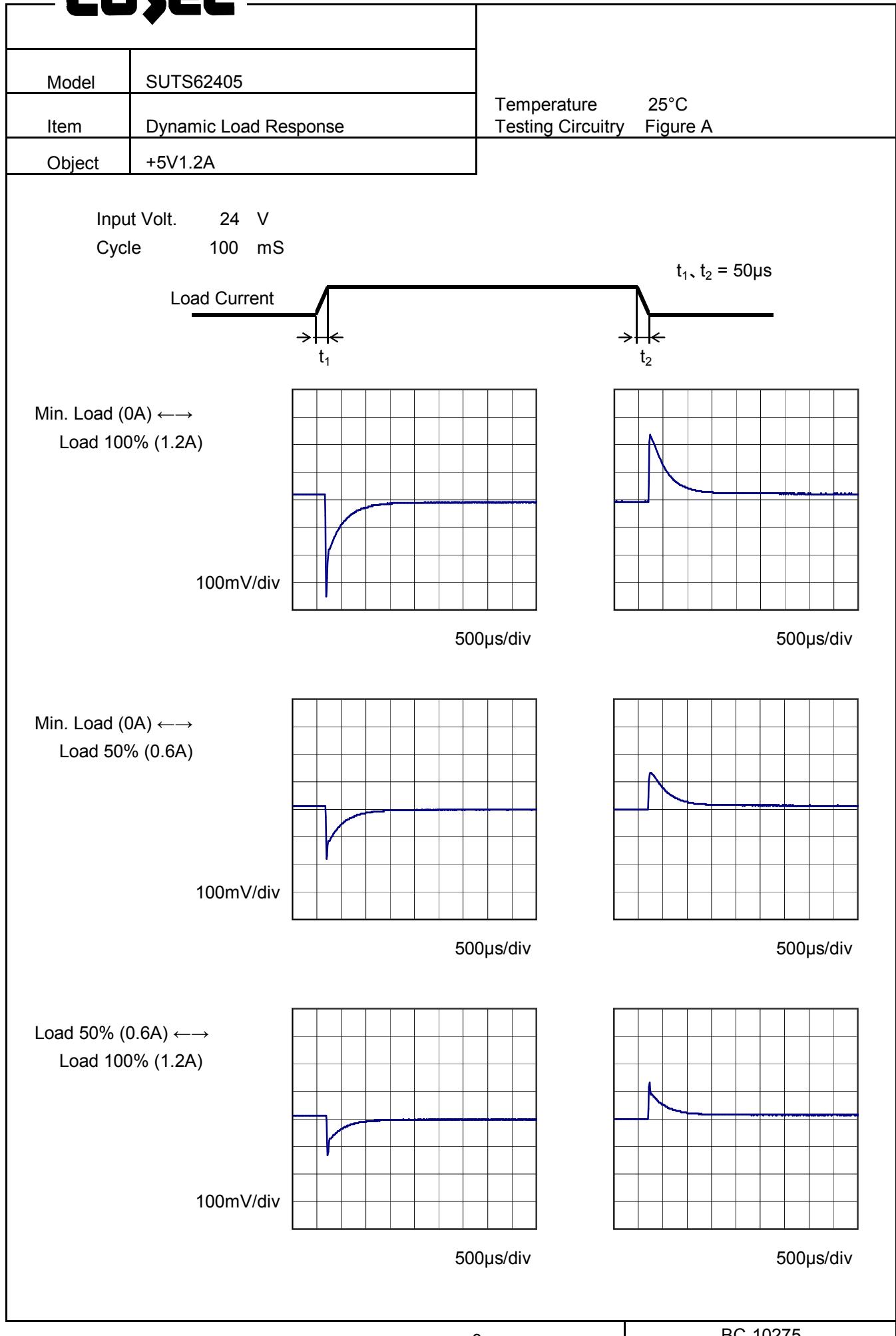
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Model	SUTS62405	Temperature Testing Circuitry      25°C Figure A																																																				
Item	Load Regulation																																																					
Object	+5V1.2A																																																					
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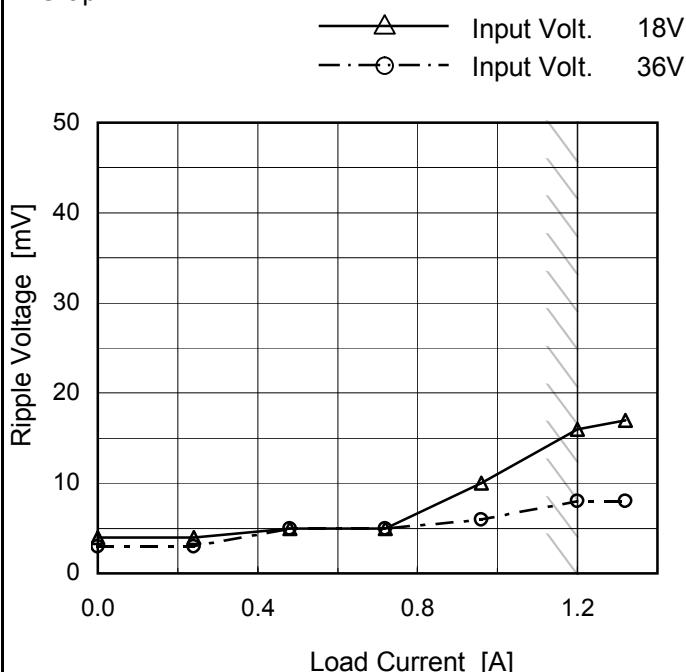
# COSEL



Model	SUTS62405
Item	Ripple Voltage (by Load Current)
Object	+5V1.2A

Temperature 25°C  
Testing Circuitry Figure B

## 1. Graph



## 2. Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 18 [V]	Input Volt. 36 [V]
0.00	4	3
0.24	4	3
0.48	5	5
0.72	5	5
0.96	10	6
1.20	16	8
1.32	17	8
--	-	-
--	-	-
--	-	-
--	-	-

Ripple Voltage is shown as p-p in the figure below.

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

Ripple [mVp-p]

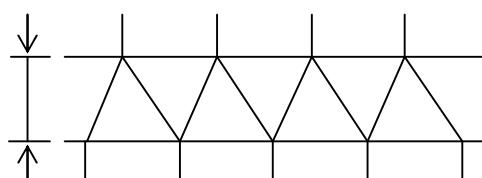
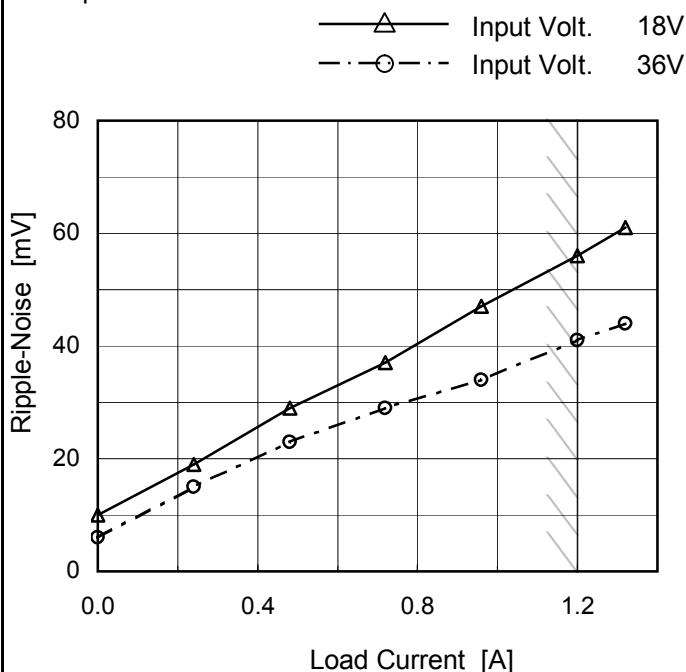


Fig.Complex Ripple Wave Form

Model	SUTS62405
Item	Ripple-Noise
Object	+5V1.2A

Temperature 25°C  
Testing Circuitry Figure B

## 1. Graph



Measured by 100 MHz Oscilloscope.

Ripple-Noise is shown as p-p in the figure below.

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

## 2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 18 [V]	Input Volt. 36 [V]
0.00	10	6
0.24	19	15
0.48	29	23
0.72	37	29
0.96	47	34
1.20	56	41
1.32	61	44
--	-	-
--	-	-
--	-	-
--	-	-

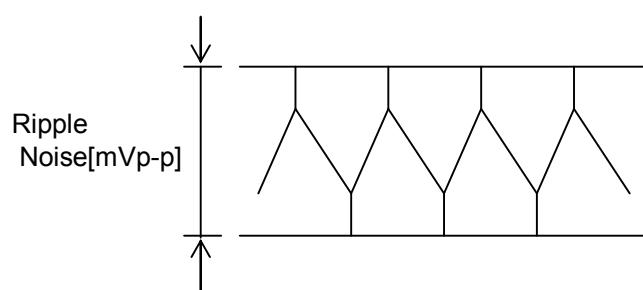
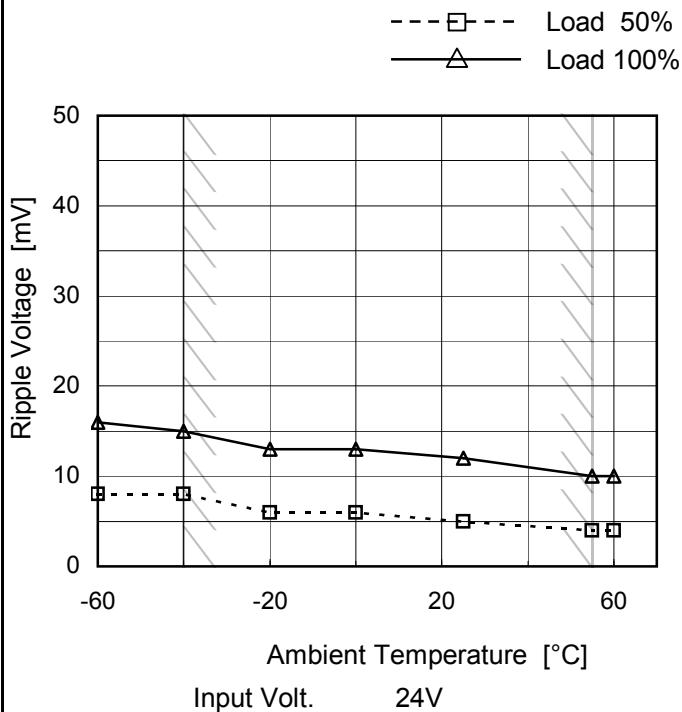


Fig.Complex Ripple Noise Wave Form

Model	SUTS62405
Item	Ripple Voltage (by Ambient Temp.)
Object	+5V1.2A

## 1. Graph



Measured by 100 MHz Oscilloscope.

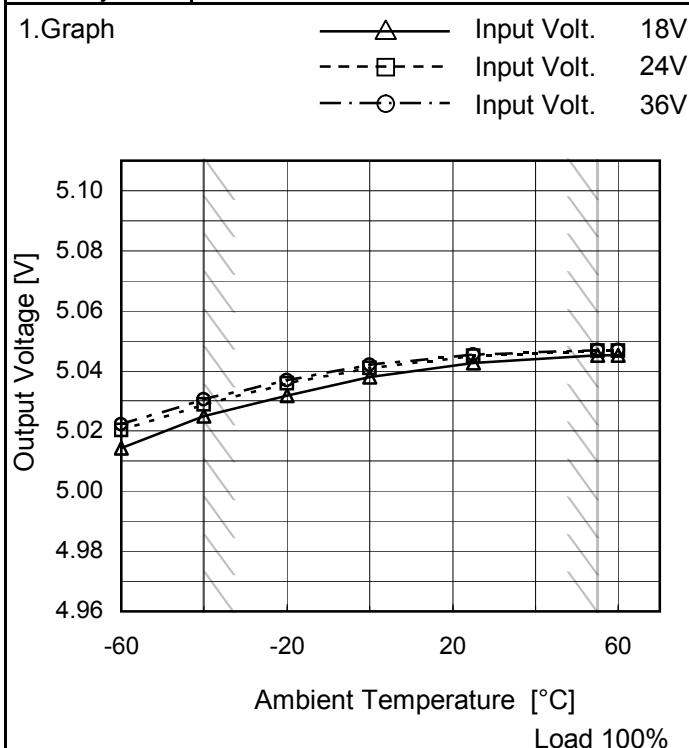
Note: Slanted line shows the range of the rated ambient temperature.

Testing Circuitry Figure B

## 2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-60	8	16
-40	8	15
-20	6	13
0	6	12
25	5	10
55	4	8
60	4	7
--	-	-
--	-	-
--	-	-
--	-	-

Model	SUTS62405
Item	Ambient Temperature Drift
Object	+5V1.2A



Testing Circuitry Figure A

## 2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-60	5.014	5.020	5.022
-40	5.025	5.029	5.031
-20	5.032	5.036	5.037
0	5.038	5.041	5.042
25	5.043	5.045	5.046
55	5.045	5.047	5.047
60	5.045	5.047	5.047
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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



Model	SUTS62405	Testing Circuitry Figure A
Item	Output Voltage Accuracy	
Object	+5V1.2A	

### 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 - 55°C

Input Voltage : 18 - 36V

Load Current : 0 - 1.2A

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

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

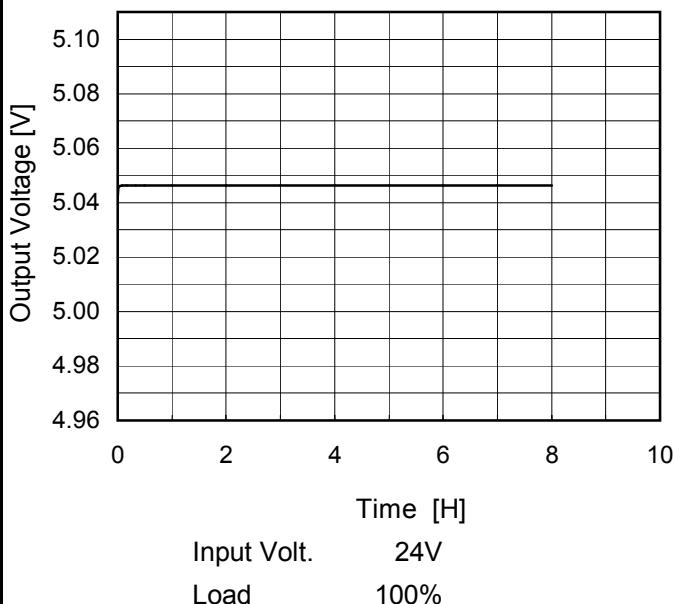
### 2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	55	36	0	5.059	±17	±0.3
Minimum Voltage	-40	18	1.2	5.025		

**COSEL**

Model	SUTS62405
Item	Time Lapse Drift
Object	+5V1.2A

1. Graph



Temperature 25°C  
Testing Circuitry Figure A

2. Values

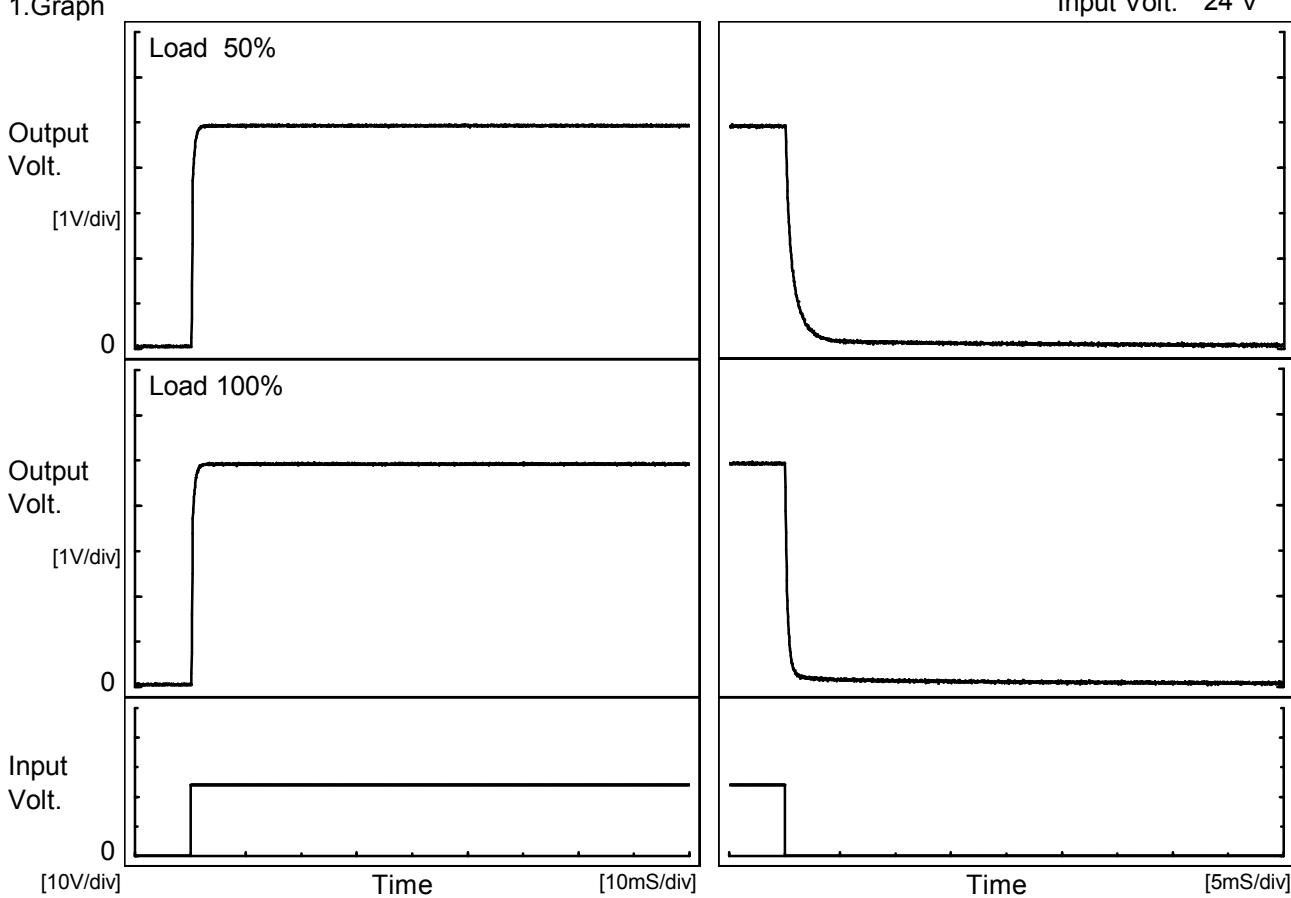
Time since start [H]	Output Voltage [V]
0.0	5.042
0.5	5.046
1.0	5.046
2.0	5.046
3.0	5.046
4.0	5.046
5.0	5.046
6.0	5.046
7.0	5.046
8.0	5.046

**COSEL**

Model	SUTS62405
Item	Rise and Fall Time
Object	+5V1.2A

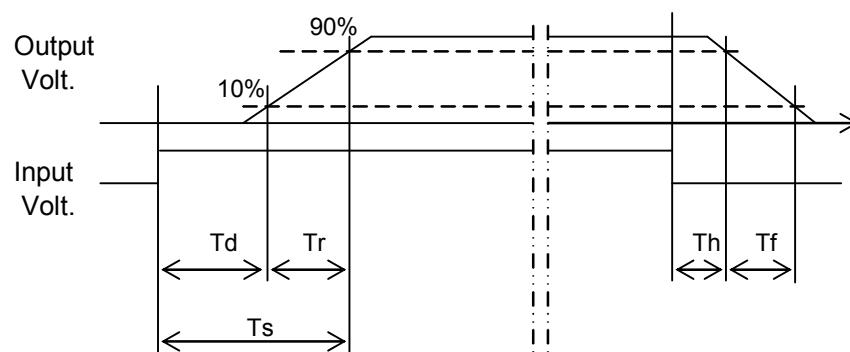
Temperature 25°C  
Testing Circuitry Figure A

## 1. Graph



## 2. Values

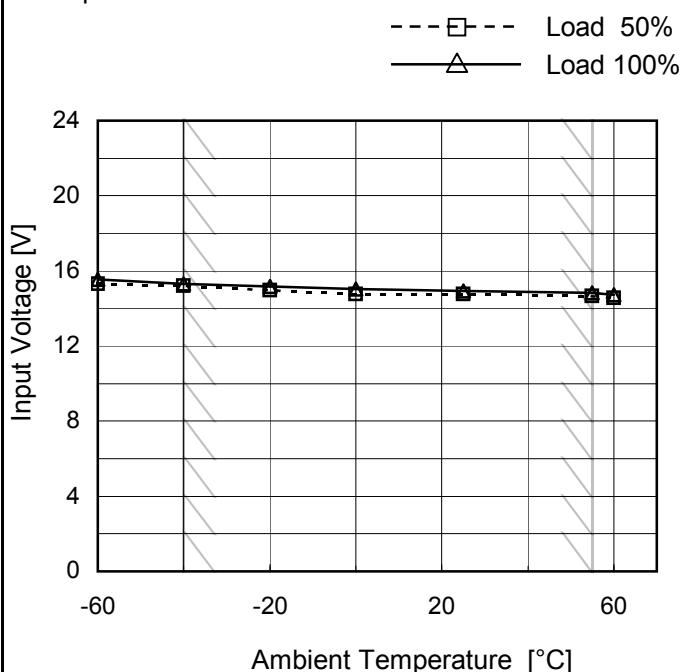
Load	Time	Td	Tr	Ts	Th	Tf
50 %		0.3	0.7	1.0	0.1	1.8
100 %		0.3	0.7	1.0	0.1	0.6



Model	SUTS62405
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+5V1.2A

## Testing Circuitry Figure A

## 1. Graph



## 2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	15.3	15.6
-40	15.2	15.4
-20	15.0	15.2
0	14.8	15.1
25	14.8	15.0
55	14.7	14.9
60	14.6	14.8
--	-	-
--	-	-
--	-	-
--	-	-

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

Model	SUTS62405	Temperature Testing Circuitry 25°C Figure A																																																							
Item	Overcurrent Protection																																																								
Object	+5V1.2A																																																								
1.Graph	<p>Input Volt. 18V Input Volt. 24V Input Volt. 36V</p> <p>Output Voltage [V]</p> <p>Load Current [A]</p> <p>Note: Slanted line shows the range of the rated load current.</p>	2.Values																																																							
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coSEL

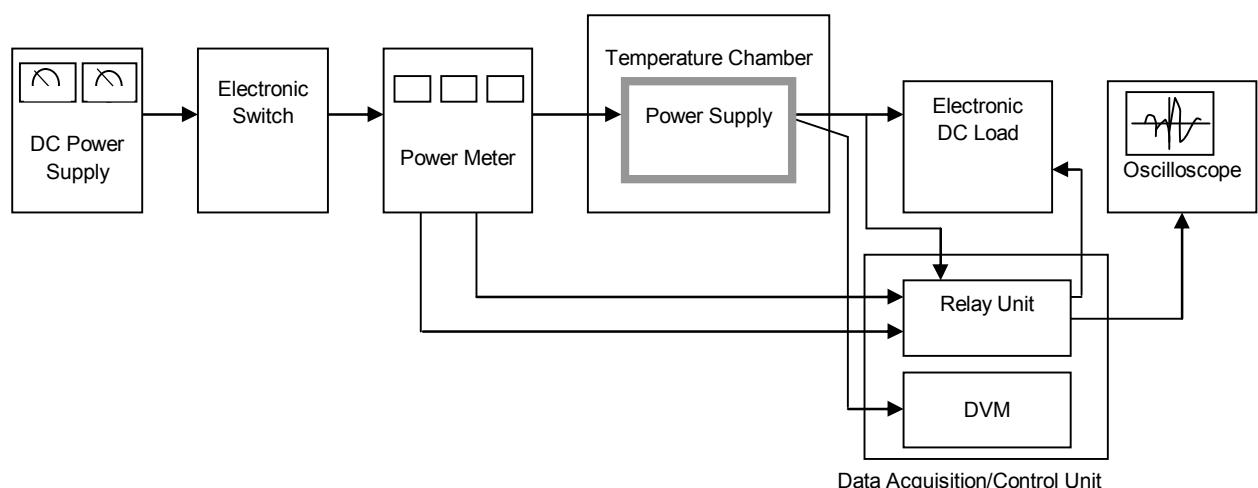


Figure A

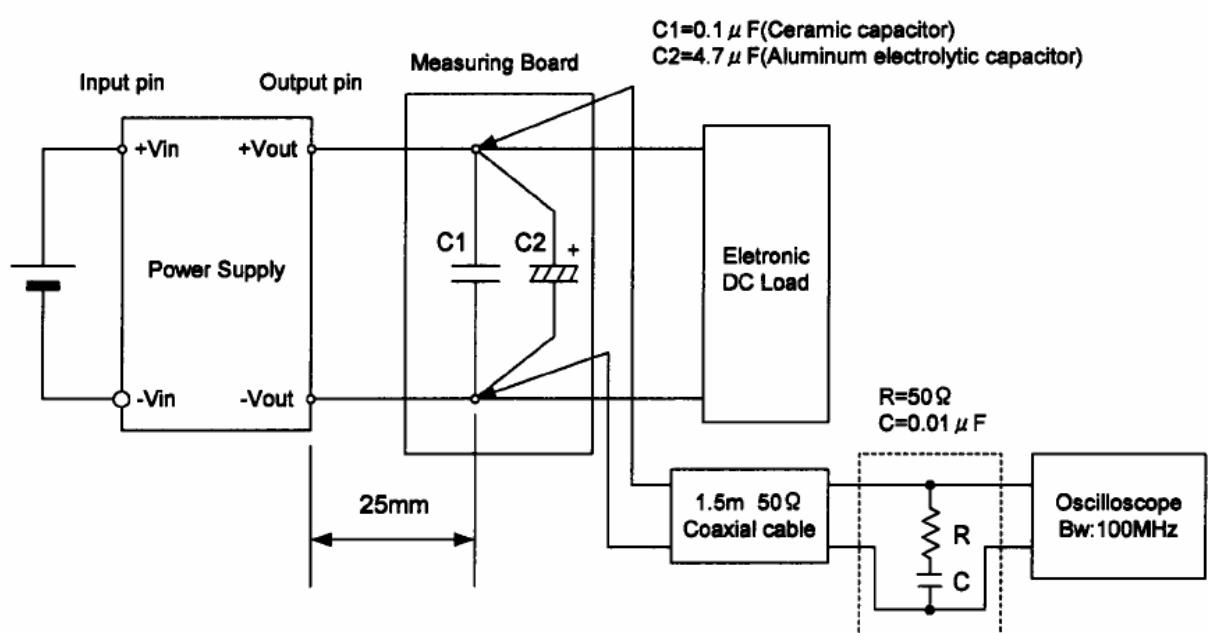


Figure B (Ripple and Ripple noise Characteristic)