

TEST DATA OF SUS62405 SUCS62405

Regulated DC Power Supply
Feb 17, 2005

Approved by : Tetsuo Sugimori
Tetsuo Sugimori Design Manager

Prepared by : Yoshikazu Mizuno
Yoshikazu Mizuno Design Engineer

COSEL CO.,LTD.

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Model		SUS62405/SUCS62405		Temperature 25°C																																																																								
Item		Input Current (by Input Voltage)		Testing Circuitry Figure A																																																																								
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Item		Efficiency (by Input Voltage)																																	
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Load 50% Load 100% 90 80 70 60 50 40 30 10 20 30 40 Efficiency [%] Input Voltage [V] Note: Slanted line shows the range of the rated input voltage.		<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Efficiency [%]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>16</td><td>78.4</td><td>80.5</td></tr><tr><td>18</td><td>78.2</td><td>81.0</td></tr><tr><td>20</td><td>78.0</td><td>81.3</td></tr><tr><td>24</td><td>76.9</td><td>81.3</td></tr><tr><td>30</td><td>74.8</td><td>80.7</td></tr><tr><td>36</td><td>72.2</td><td>79.5</td></tr><tr><td>40</td><td>70.2</td><td>78.7</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Efficiency [%]		Load 50%	Load 100%	16	78.4	80.5	18	78.2	81.0	20	78.0	81.3	24	76.9	81.3	30	74.8	80.7	36	72.2	79.5	40	70.2	78.7	--	-	-	--	-	-
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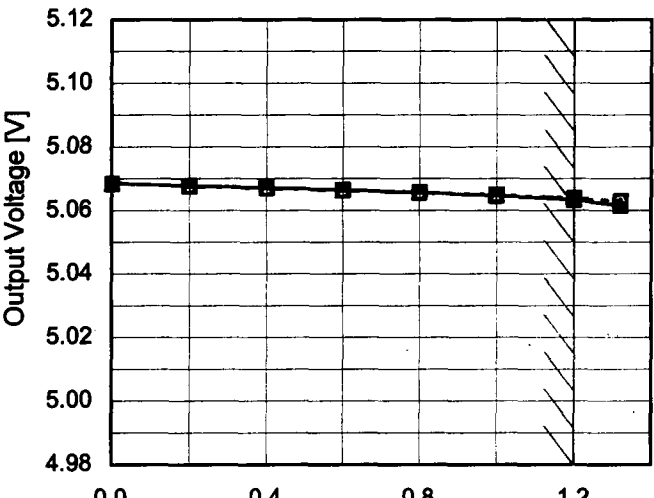
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Model	SUS62405/SUCS62405	Temperature 25°C Testing Circuitry Figure A																															
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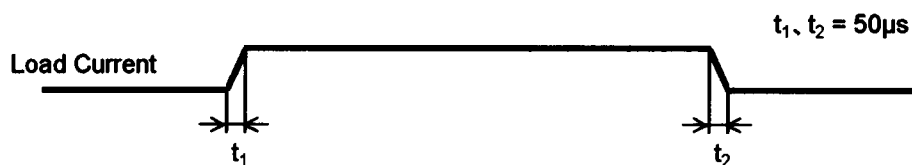
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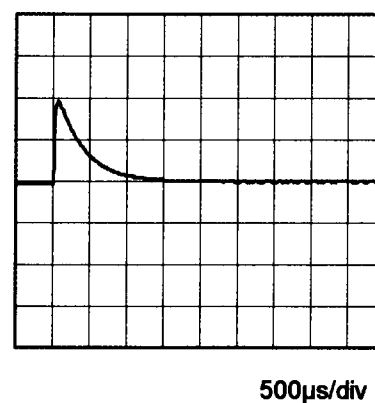
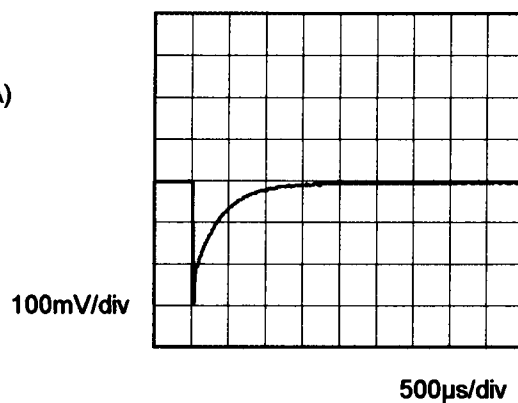
Model	SUS62405/SUCS62405
Item	Dynamic Load Response
Object	+5V1.2A

Temperature 25°C
Testing Circuitry Figure A

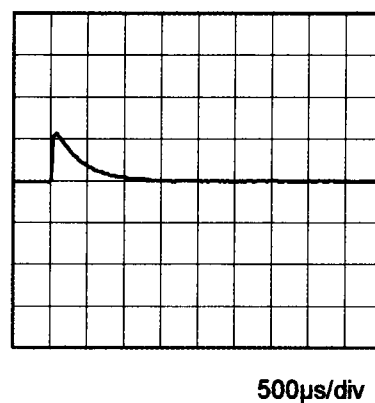
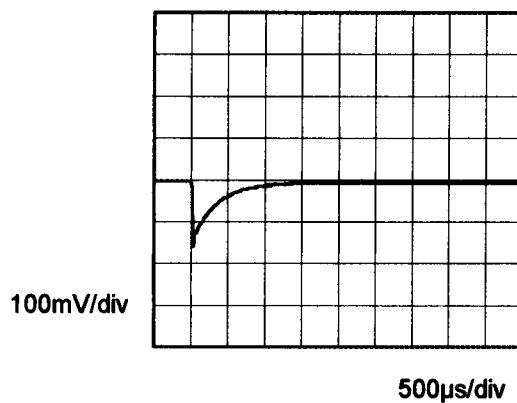
Input Volt. 24 V
Cycle 100 mS



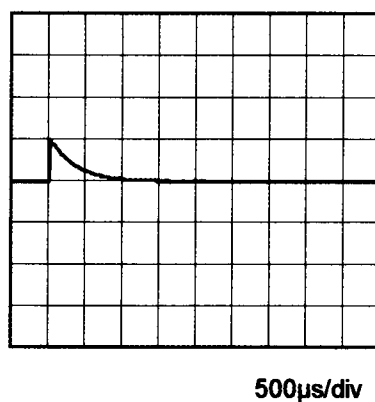
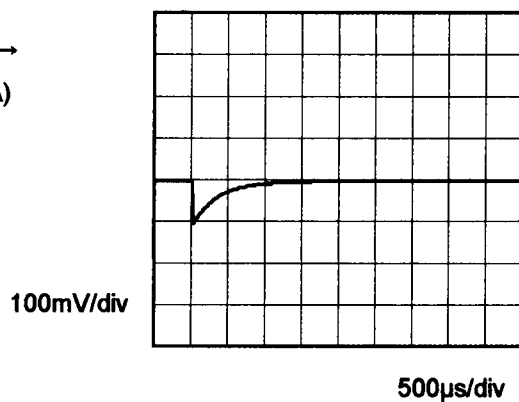
Min. Load (0A) $\longleftrightarrow$
Load 100% (1.2A)



Min. Load (0A) $\longleftrightarrow$
Load 50% (0.6A)



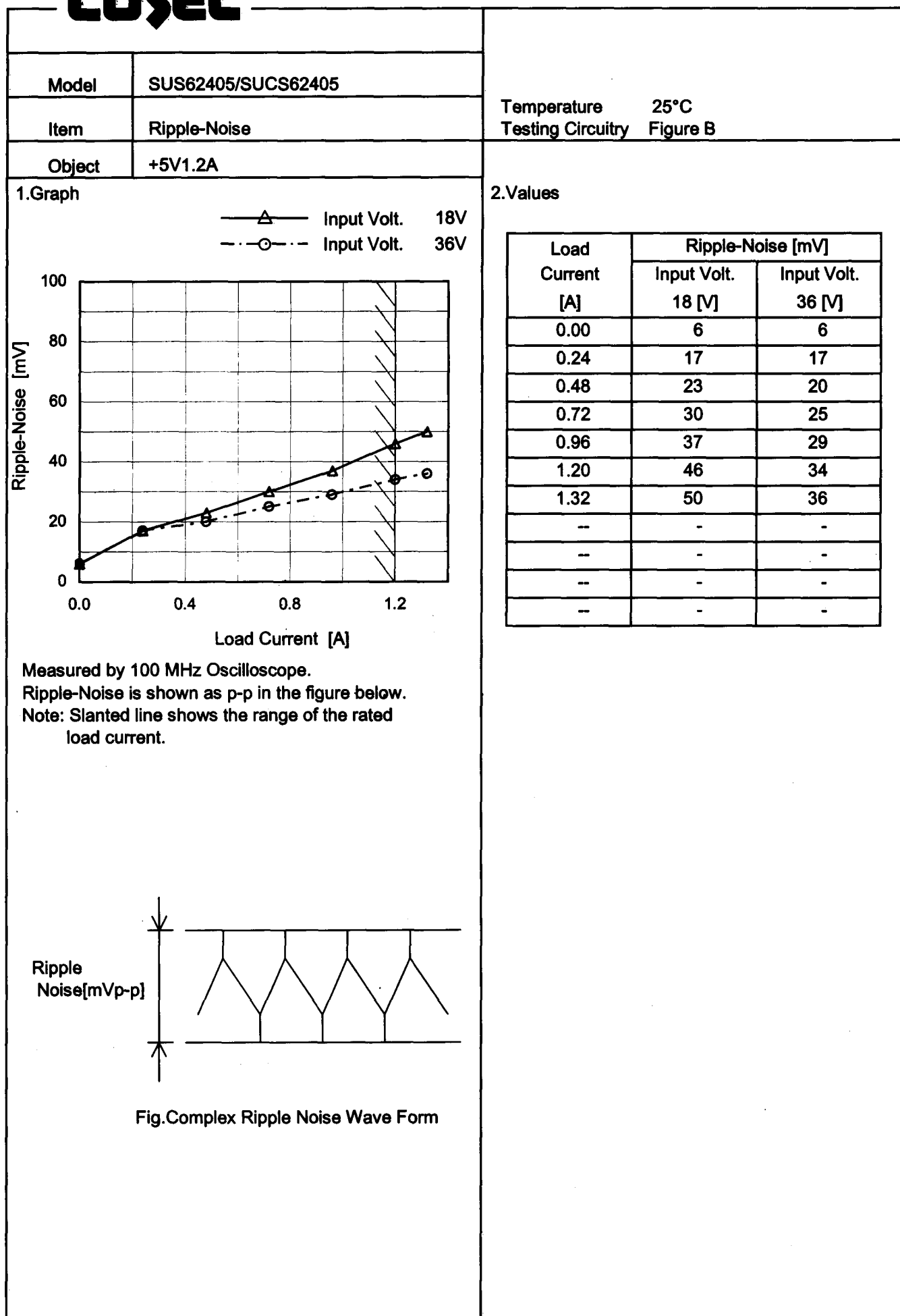
Load 50% (0.6A) $\longleftrightarrow$
Load 100% (1.2A)



COSEL

Model		SUS62405/SUCS62405		Temperature Testing Circuitry	25°C Figure B
Item		Ripple Voltage (by Load Current)			
Object		+5V1.2A			
1.Graph				2.Values	

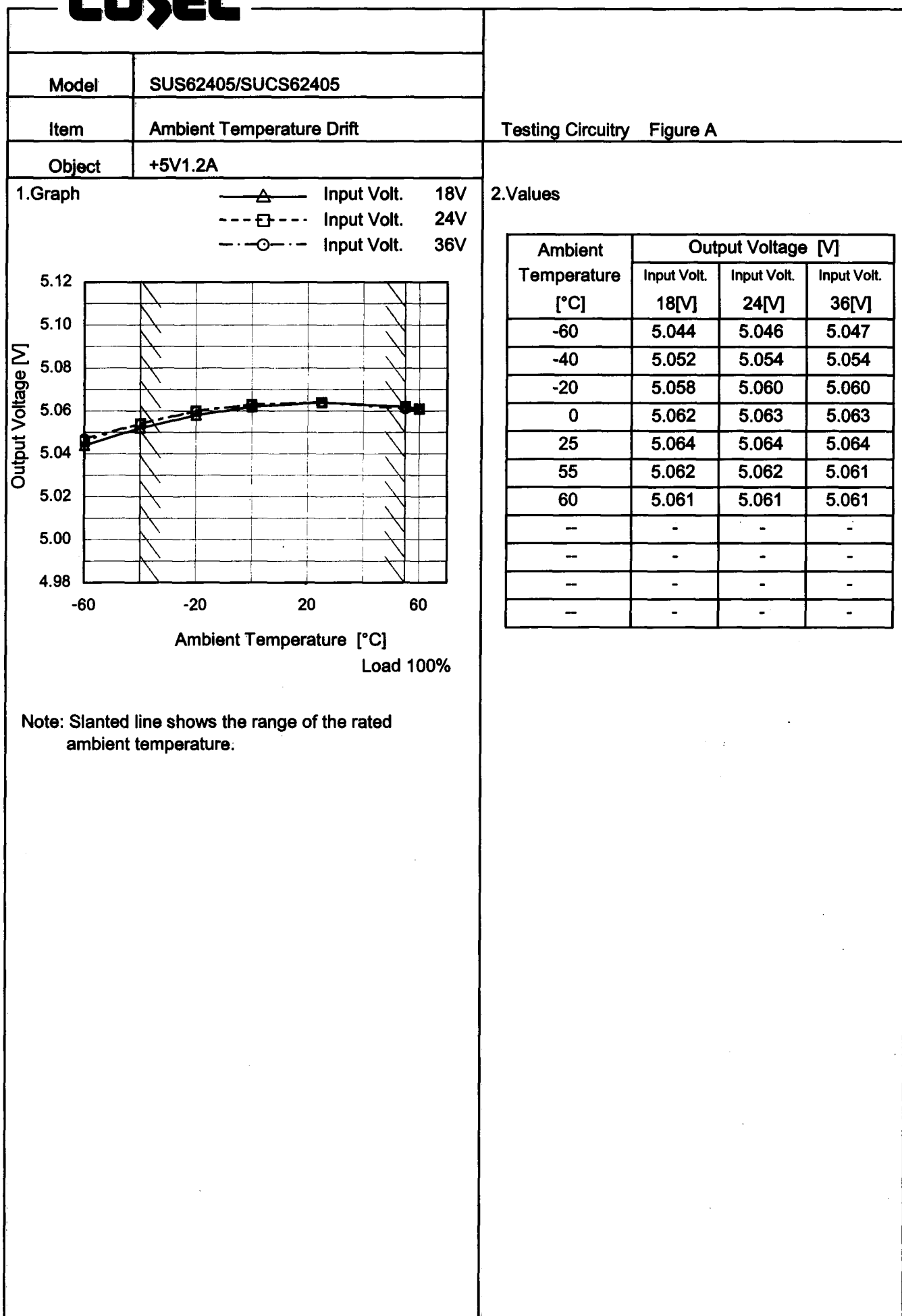
COSEL



COSEL

Model		SUS62405/SUCS62405	
Item	Ripple Voltage (by Ambient Temp.)		
Object	+5V1.2A		
1.Graph			
Load 50% Load 100% 50 40 30 20 10 0 </			

COSEL



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		Testing Circuitry Figure A
Model	SUS62405/SUCS62405	
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

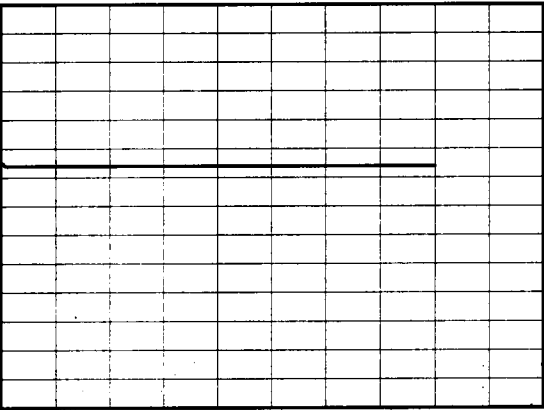
* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

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

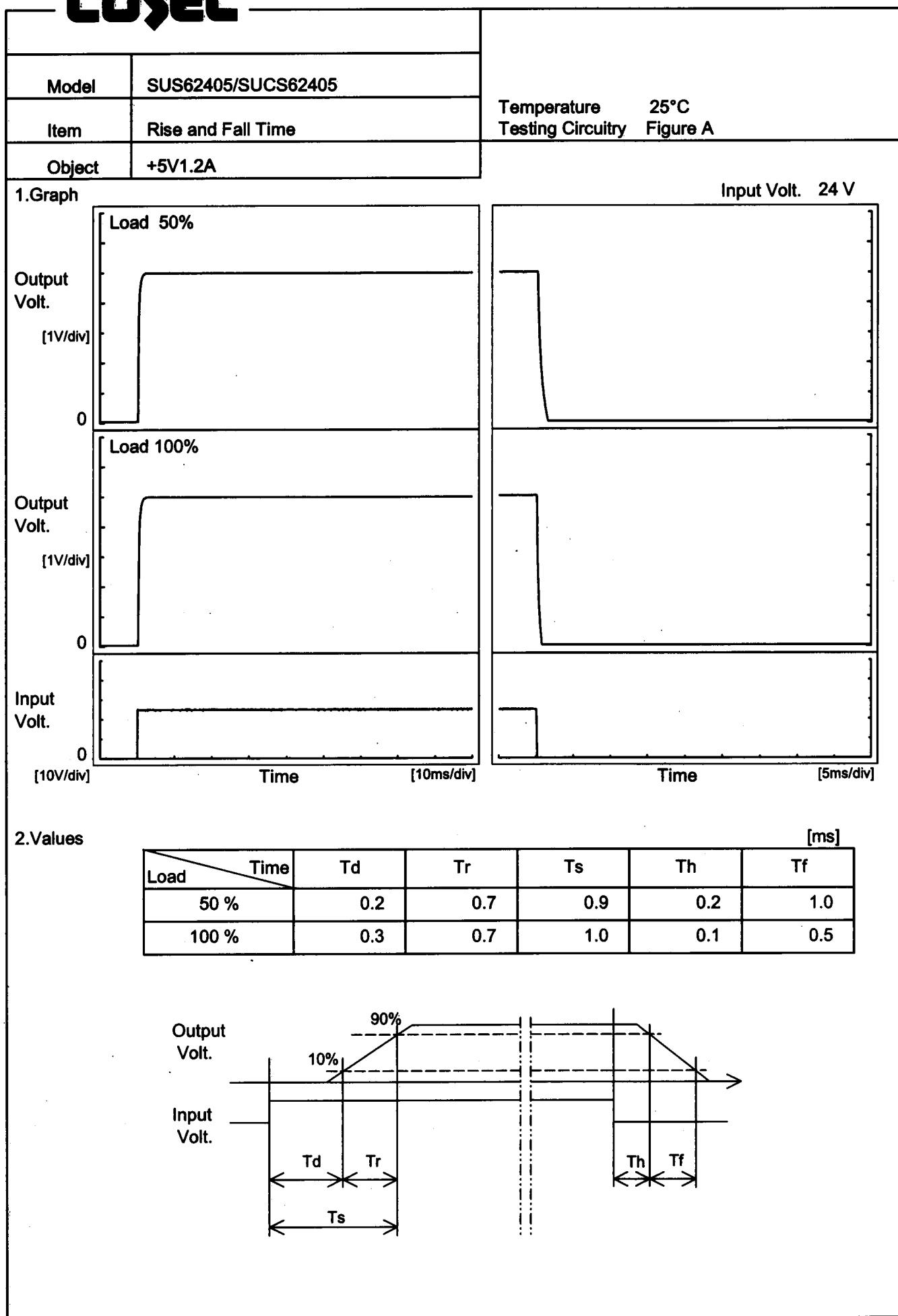
2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	25	18	0	5.069	±9	±0.2
Minimum Voltage	-40	18	1.2	5.052		

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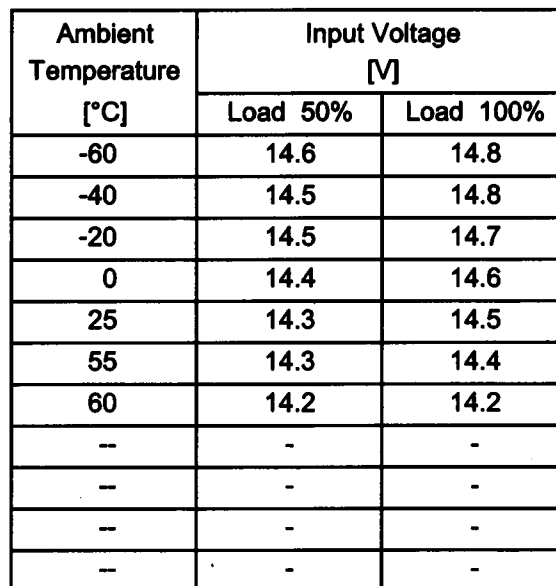
Model	SUS62405/SUCS62405																								
Item	Time Lapse Drift	Temperature	25°C																						
Object	+5V1.2A	Testing Circuitry	Figure A																						
1.Graph		2.Values																							
5.12 5.10 5.08 5.06 5.04 5.02 5.00 4.98  0 2 4 6 8 10 Time [H] Input Volt. 24V Load 100%		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>5.065</td></tr><tr><td>0.5</td><td>5.064</td></tr><tr><td>1.0</td><td>5.064</td></tr><tr><td>2.0</td><td>5.064</td></tr><tr><td>3.0</td><td>5.064</td></tr><tr><td>4.0</td><td>5.064</td></tr><tr><td>5.0</td><td>5.064</td></tr><tr><td>6.0</td><td>5.064</td></tr><tr><td>7.0</td><td>5.064</td></tr><tr><td>8.0</td><td>5.064</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	5.065	0.5	5.064	1.0	5.064	2.0	5.064	3.0	5.064	4.0	5.064	5.0	5.064	6.0	5.064	7.0	5.064	8.0	5.064
Time since start [H]	Output Voltage [V]																								
0.0	5.065																								
0.5	5.064																								
1.0	5.064																								
2.0	5.064																								
3.0	5.064																								
4.0	5.064																								
5.0	5.064																								
6.0	5.064																								
7.0	5.064																								
8.0	5.064																								

COSEL



Testing Circuitry Figure A

2.Values



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BC-3707

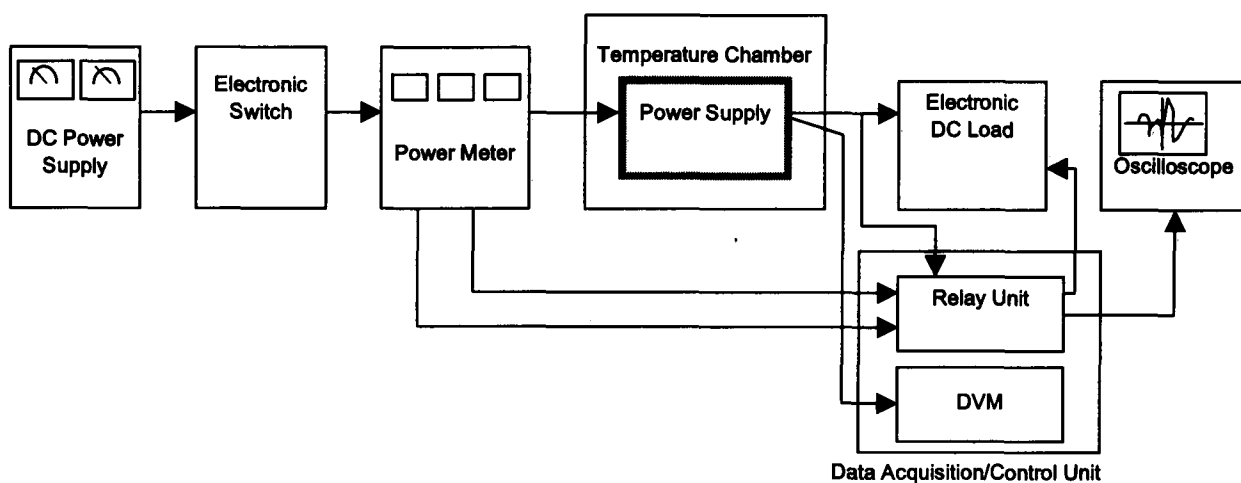


Figure A

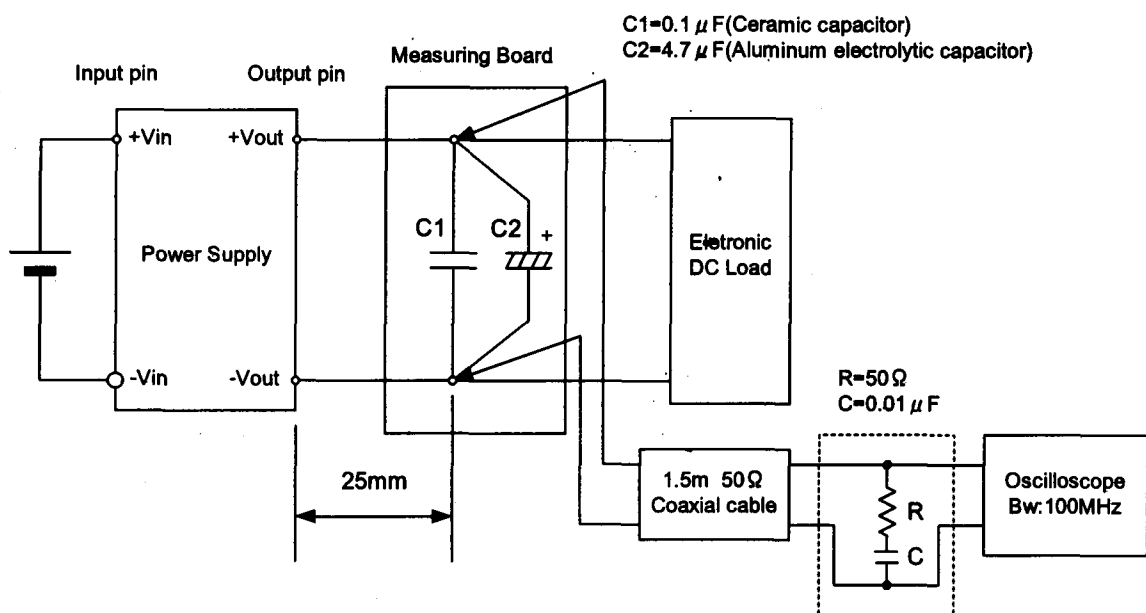


Figure B (Ripple and Ripple noise Characteristic)