

TEST DATA OF SUTW62415

Regulated DC Power Supply
March 17, 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)	10
10. Ripple-Noise	12
11. Ripple Voltage (by Ambient Temperature)	14
12. Ambient Temperature Drift	15
13. Output Voltage Accuracy	16
14. Time Lapse Drift	17
15. Rise and Fall Time	18
16. Minimum Input Voltage for Regulated Output Voltage	20
17. Overcurrent Protection	21
18. Figure of Testing Circuitry	22

(Final Page 22)



Model		SUTW62415		Temperature	25°C																																																																															
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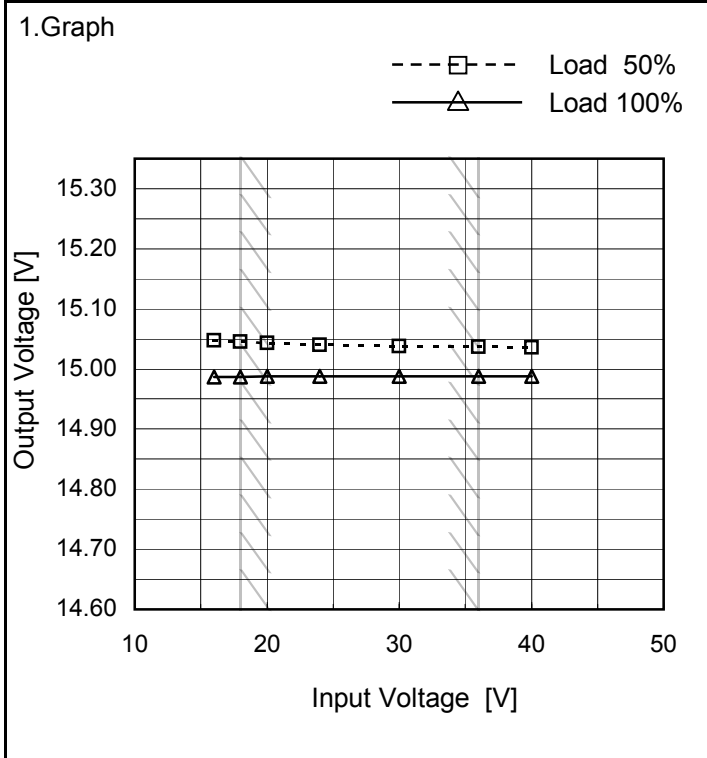


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Model	SUTW62415
Item	Line Regulation
Object	+15V0.2A

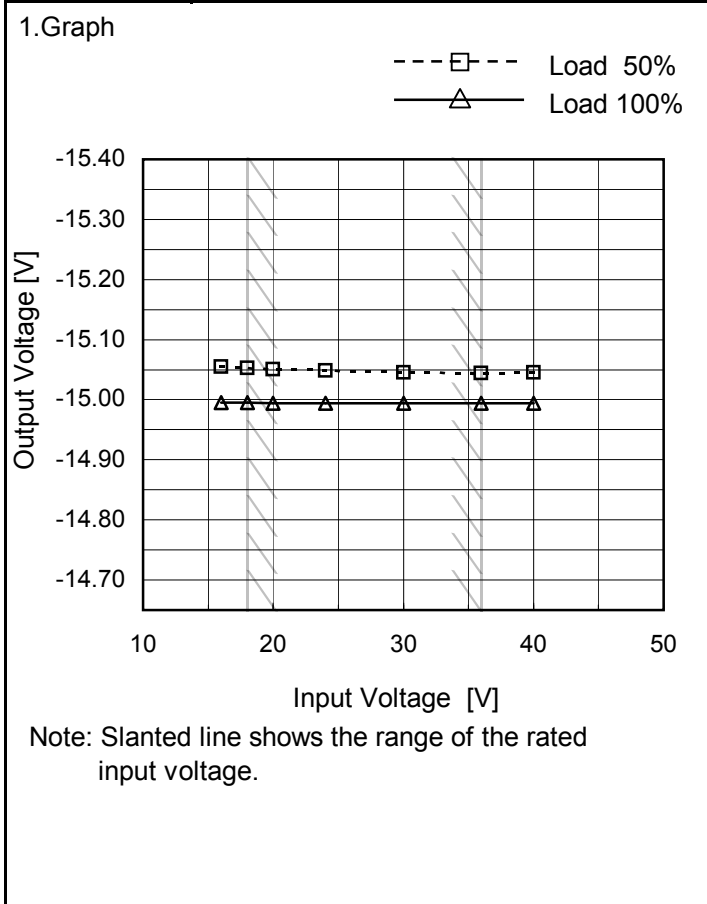
Temperature 25°C
Testing Circuitry Figure A



2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
16	15.048	14.986
18	15.045	14.987
20	15.044	14.988
24	15.041	14.988
30	15.038	14.988
36	15.036	14.987
40	15.035	14.988
--	-	-
--	-	-

Object	-15V0.2A
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2.Values

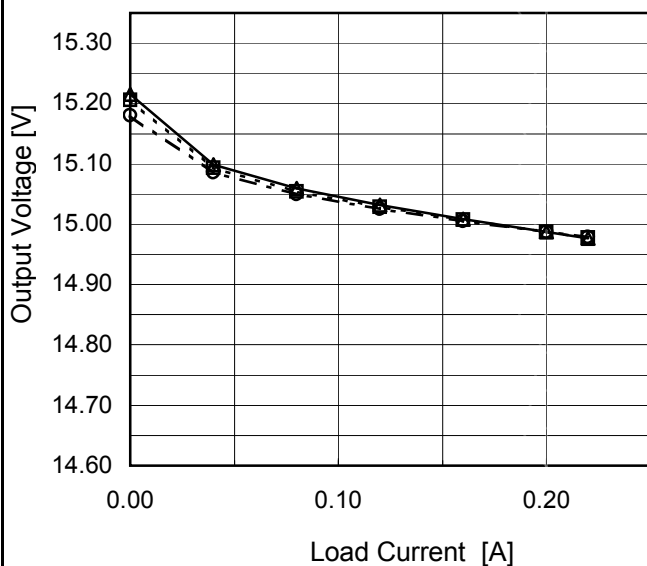
Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
16	-15.055	-14.995
18	-15.053	-14.995
20	-15.051	-14.994
24	-15.048	-14.994
30	-15.045	-14.994
36	-15.044	-14.994
40	-15.045	-14.994
--	-	-
--	-	-



Model	SUTW62415
Item	Load Regulation
Object	+15V0.2A

Temperature 25°C
Testing Circuitry Figure A

1.Graph
 —△— Input Volt. 18V
 ---□--- Input Volt. 24V
 -·-○-·- Input Volt. 36V

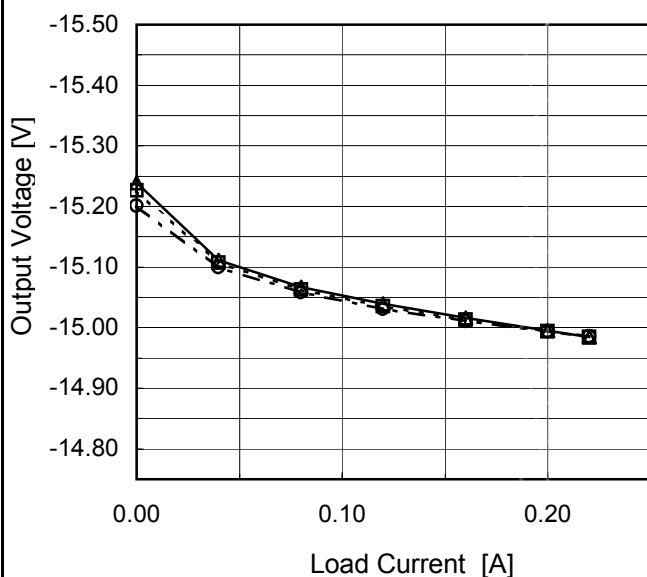


2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.00	15.215	15.205	15.180
0.04	15.098	15.094	15.086
0.08	15.060	15.054	15.049
0.12	15.032	15.028	15.025
0.16	15.009	15.007	15.005
0.20	14.987	14.987	14.987
0.22	14.976	14.978	14.979
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

Object	-15V0.2A
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1.Graph
 —△— Input Volt. 18V
 ---□--- Input Volt. 24V
 -·-○-·- Input Volt. 36V



2.Values

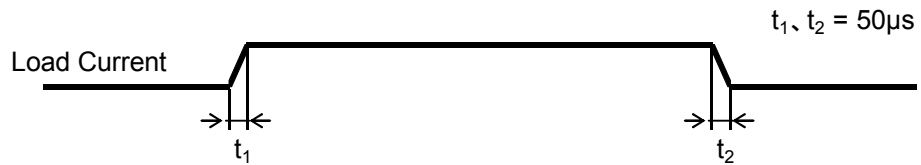
Load Current [A]	Output Voltage [V]		
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.00	-15.239	-15.227	-15.201
0.04	-15.111	-15.107	-15.100
0.08	-15.067	-15.062	-15.058
0.12	-15.040	-15.035	-15.031
0.16	-15.016	-15.013	-15.011
0.20	-14.995	-14.994	-14.994
0.22	-14.984	-14.985	-14.985
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Note: Slanted line shows the range of the rated load current.

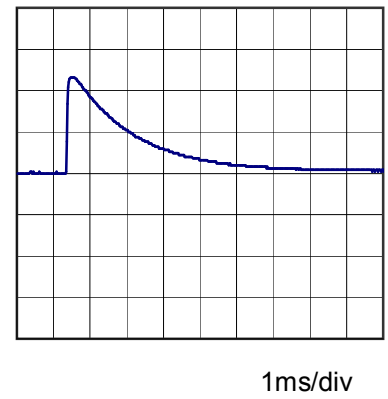
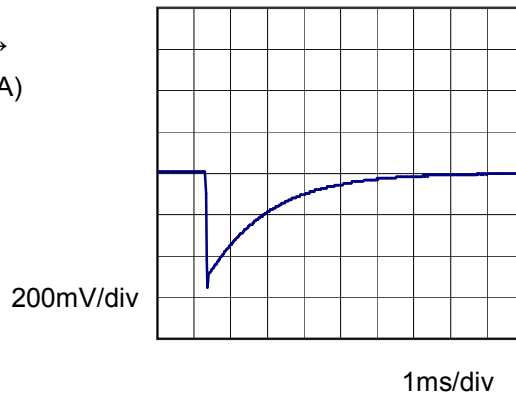


Model	SUTW62415	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+15V0.2A		

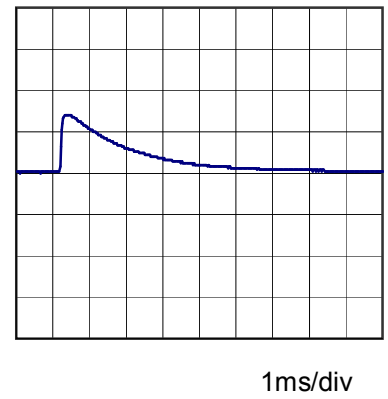
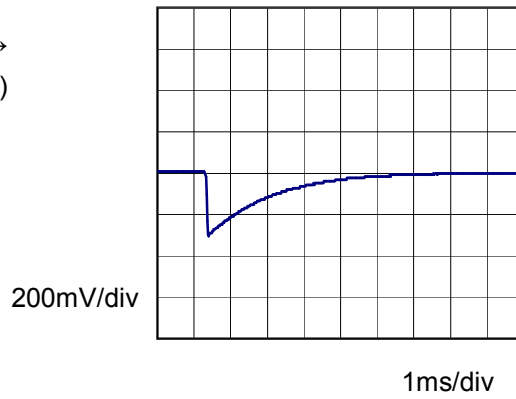
Input Volt. 24 V
 Cycle 100 mS



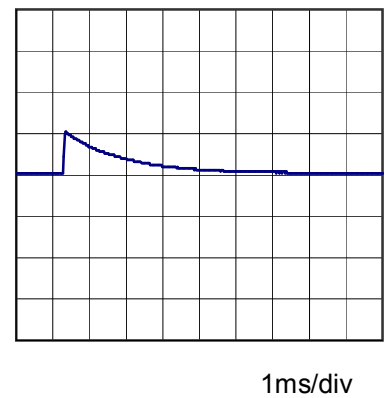
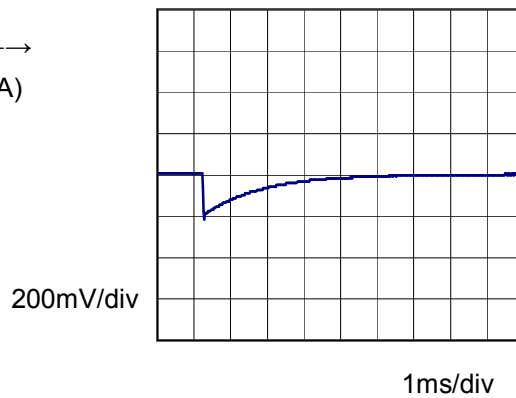
Min. Load (0A) \longleftrightarrow
 Load 100% (0.2A)



Min. Load (0A) \longleftrightarrow
 Load 50% (0.1A)



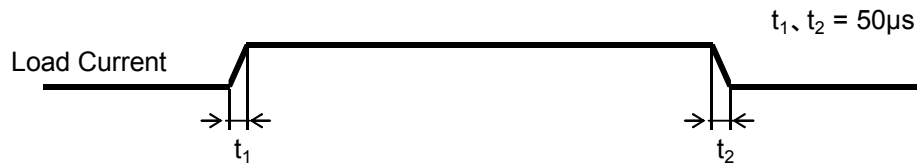
Load 50% (0.1A) \longleftrightarrow
 Load 100% (0.2A)



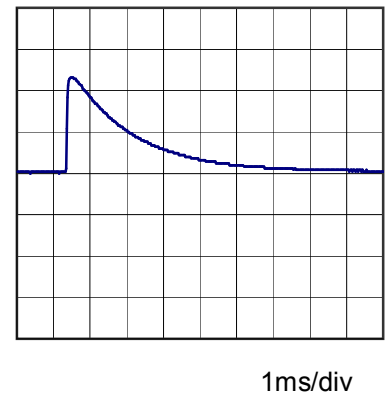
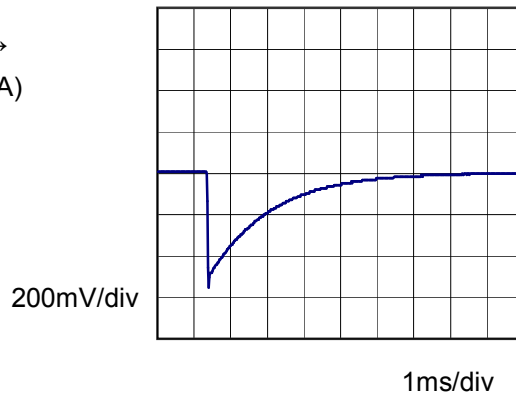


Model	SUTW62415	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	-15V0.2A		

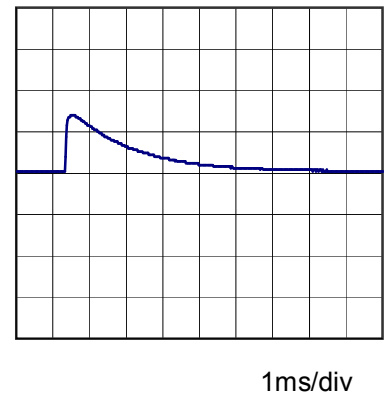
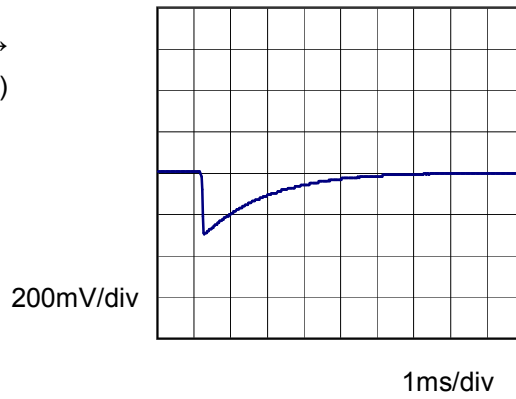
Input Volt. 24 V
 Cycle 100 mS



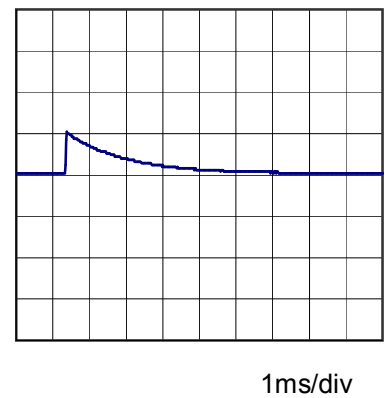
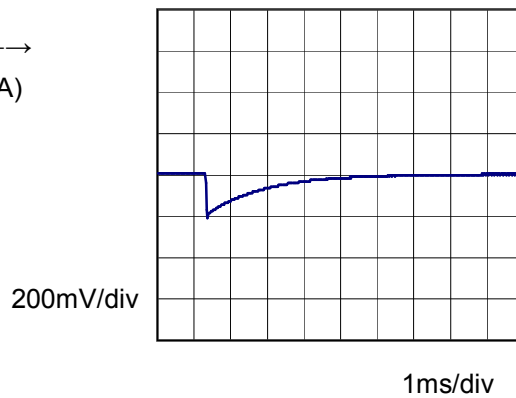
Min. Load (0A) \longleftrightarrow
 Load 100% (0.2A)



Min. Load (0A) \longleftrightarrow
 Load 50% (0.1A)



Load 50% (0.1A) \longleftrightarrow
 Load 100% (0.2A)





COSEL																																									
Model	SUTW62415	Temperature	25°C																																						
Item	Ripple Voltage (by Load Current)	Testing Circuitry	Figure B																																						
Object	+15V0.2A																																								
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COSEL		
Model	SUTW62415	
Item	Output Voltage Accuracy	Testing Circuitry Figure A

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 (AVR 1) : 0 - 0.2A (AVR 2) : 0 - 0.2A

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

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

2. Values

Object		+15V0.2A				
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	55	18	0	15.223	±247	±1.6
Minimum Voltage	-40	18	0.2	14.729		

Object		-15V0.2A				
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	55	18	0	-15.247	±245	±1.6
Minimum Voltage	-40	18	0.2	-14.757		



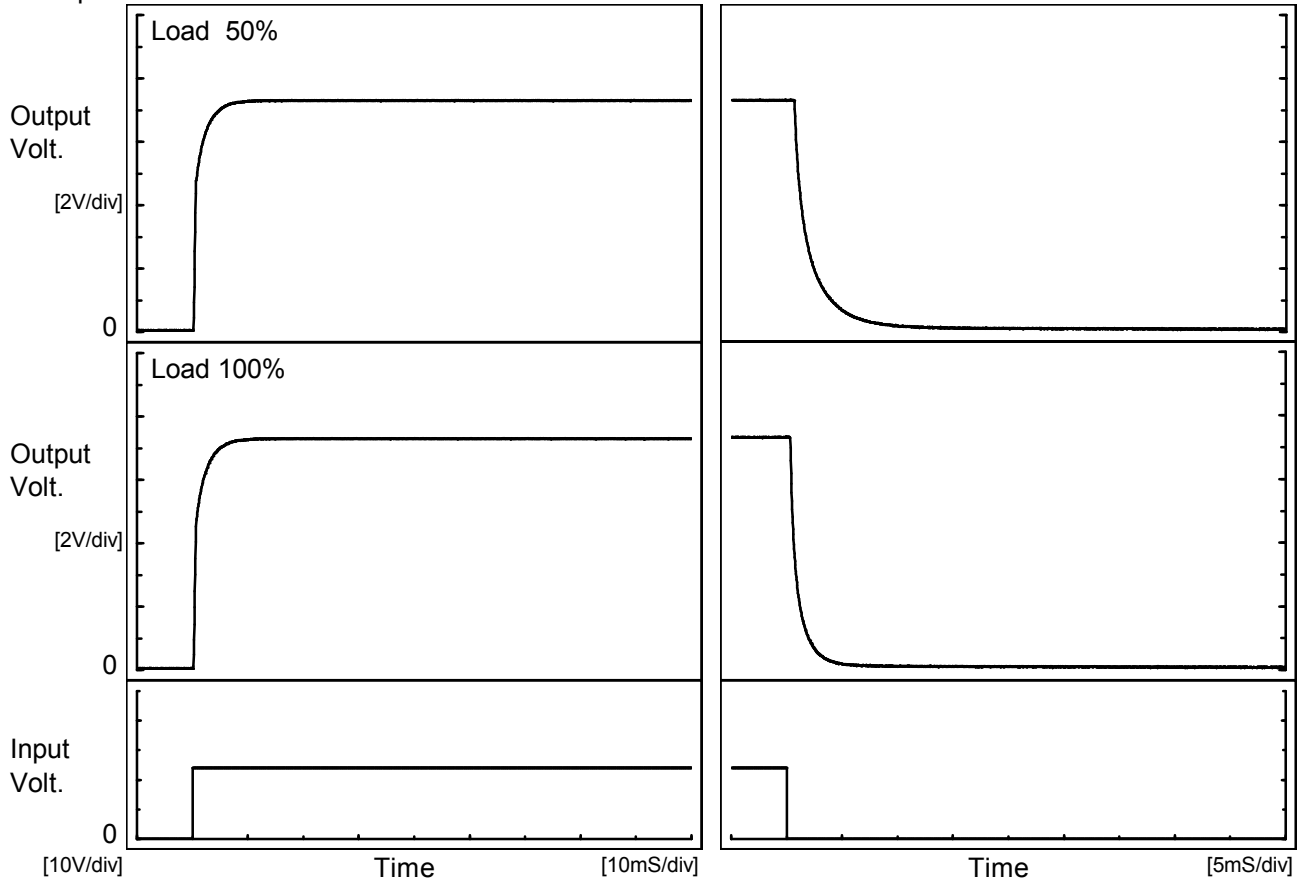
COSEL																									
Model	SUTW62415	Temperature	25°C																						
Item	Time Lapse Drift	Testing Circuitry	Figure A																						
Object	+15V0.2A																								
<p>1.Graph</p> <p style="text-align: center;">Time [H]</p> <p style="text-align: center;">Input Volt. 24V Load 100%</p>		<p>2.Values</p> <table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>14.983</td></tr> <tr><td>0.5</td><td>14.986</td></tr> <tr><td>1.0</td><td>14.986</td></tr> <tr><td>2.0</td><td>14.986</td></tr> <tr><td>3.0</td><td>14.986</td></tr> <tr><td>4.0</td><td>14.986</td></tr> <tr><td>5.0</td><td>14.986</td></tr> <tr><td>6.0</td><td>14.986</td></tr> <tr><td>7.0</td><td>14.986</td></tr> <tr><td>8.0</td><td>14.986</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	14.983	0.5	14.986	1.0	14.986	2.0	14.986	3.0	14.986	4.0	14.986	5.0	14.986	6.0	14.986	7.0	14.986	8.0	14.986
Time since start [H]	Output Voltage [V]																								
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Time since start [H]	Output Voltage [V]																								
0.0	-14.993																								
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Model		SUTW62415	Temperature	25°C
Item		Rise and Fall Time	Testing Circuitry	Figure A
Object		+15V0.2A		

1. Graph

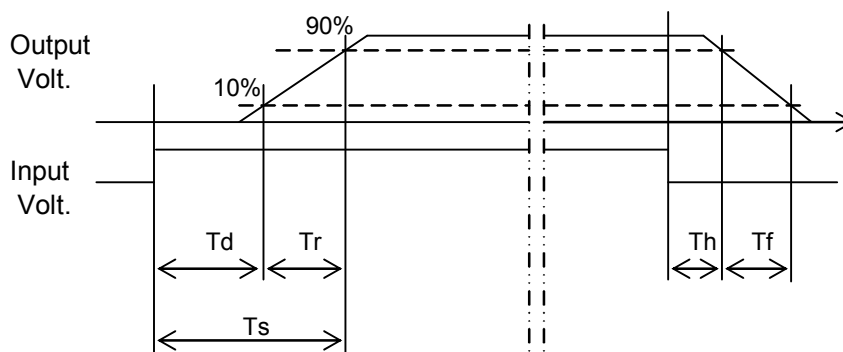
Input Volt. 24 V



2. Values

[mS]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.3	3.5	3.8	0.7	3.9
100 %	0.3	3.6	3.9	0.4	1.9

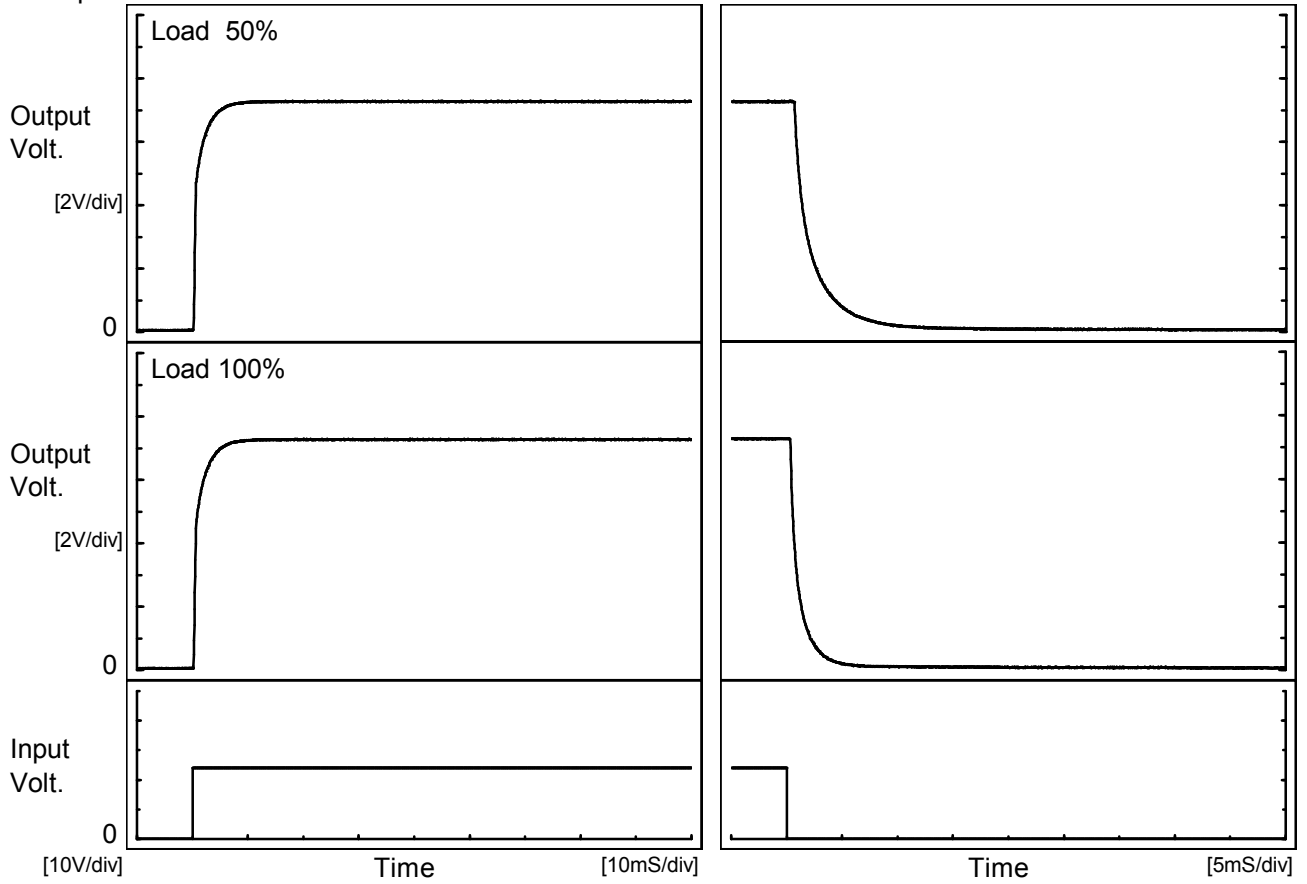




Model		SUTW62415	Temperature	25°C
Item		Rise and Fall Time	Testing Circuitry	Figure A
Object		-15V0.2A		

1. Graph

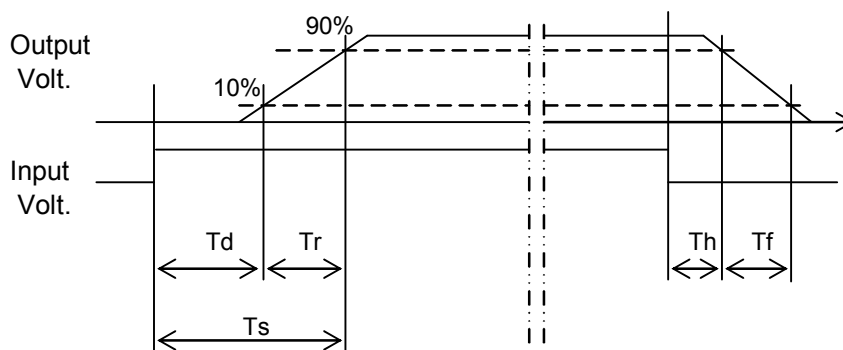
Input Volt. 24 V



2. Values

[mS]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.3	3.6	3.9	0.7	4.2
100 %	0.3	3.7	4.0	0.4	2.2

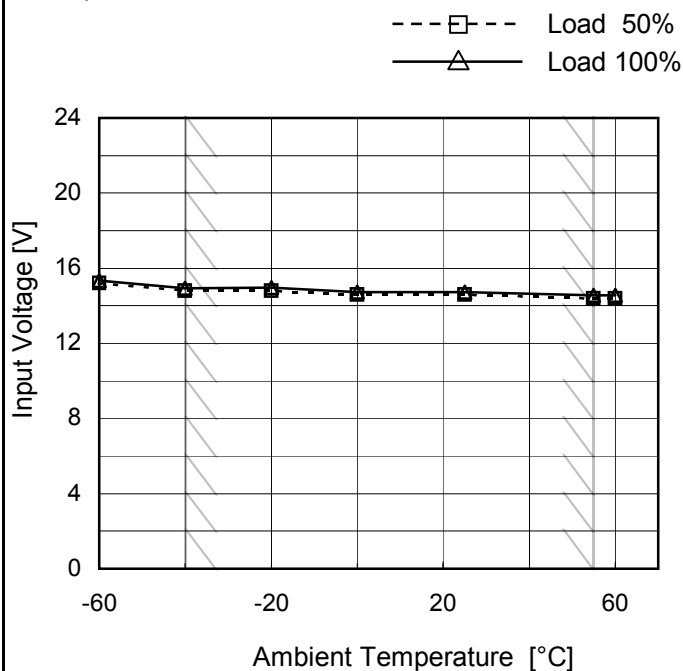




Model	SUTW62415
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+15V0.2A

Testing Circuitry Figure A

1.Graph

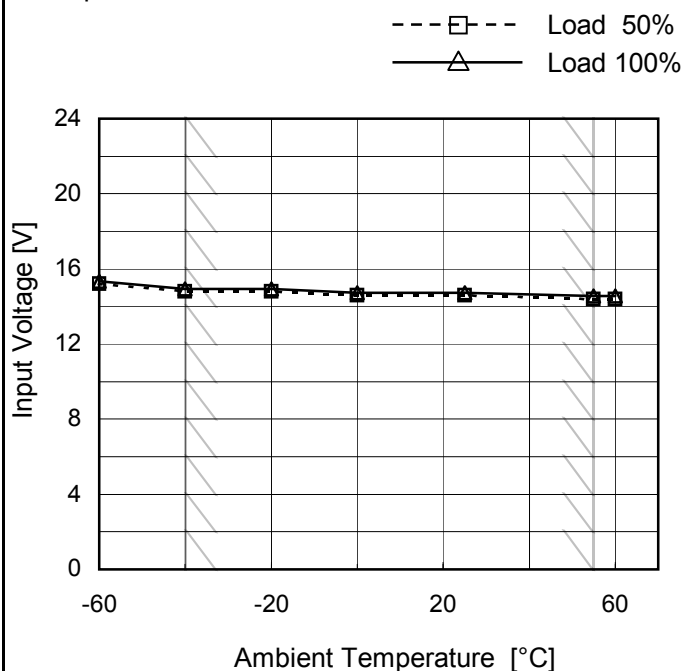


2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	15.2	15.4
-40	14.8	15.0
-20	14.8	15.0
0	14.6	14.8
25	14.6	14.8
55	14.4	14.6
60	14.4	14.6
--	-	-
--	-	-
--	-	-
--	-	-

Object	-15V0.2A
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1.Graph



2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	15.2	15.4
-40	14.8	15.0
-20	14.8	15.0
0	14.6	14.8
25	14.6	14.8
55	14.4	14.6
60	14.4	14.6
--	-	-
--	-	-
--	-	-
--	-	-

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



COSEL																																																										
Model	SUTW62415	Temperature	25°C																																																							
Item	Overcurrent Protection	Testing Circuitry	Figure A																																																							
Object	+15V0.2A																																																									
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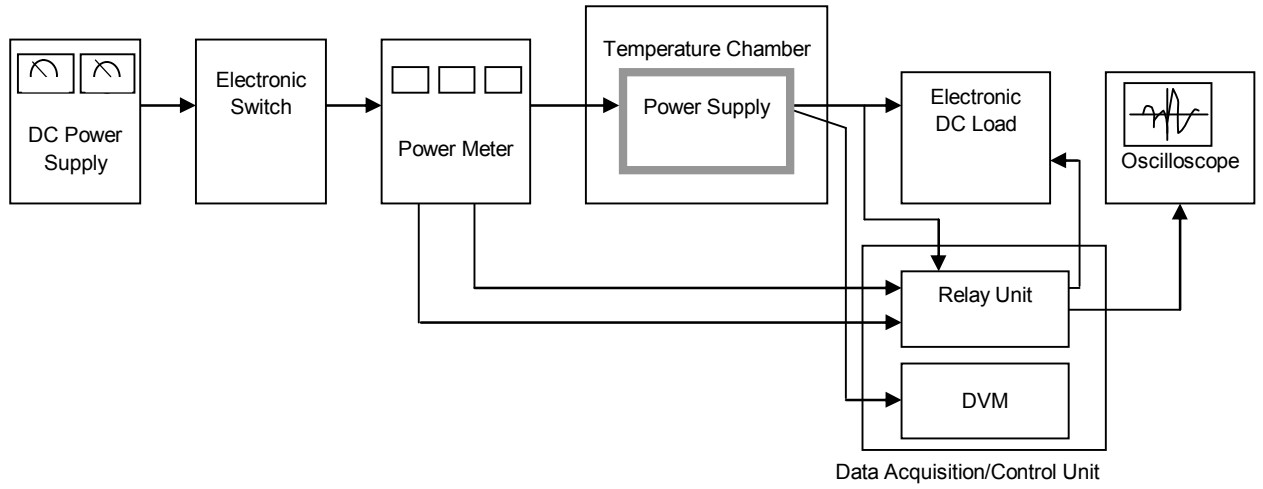


Figure A

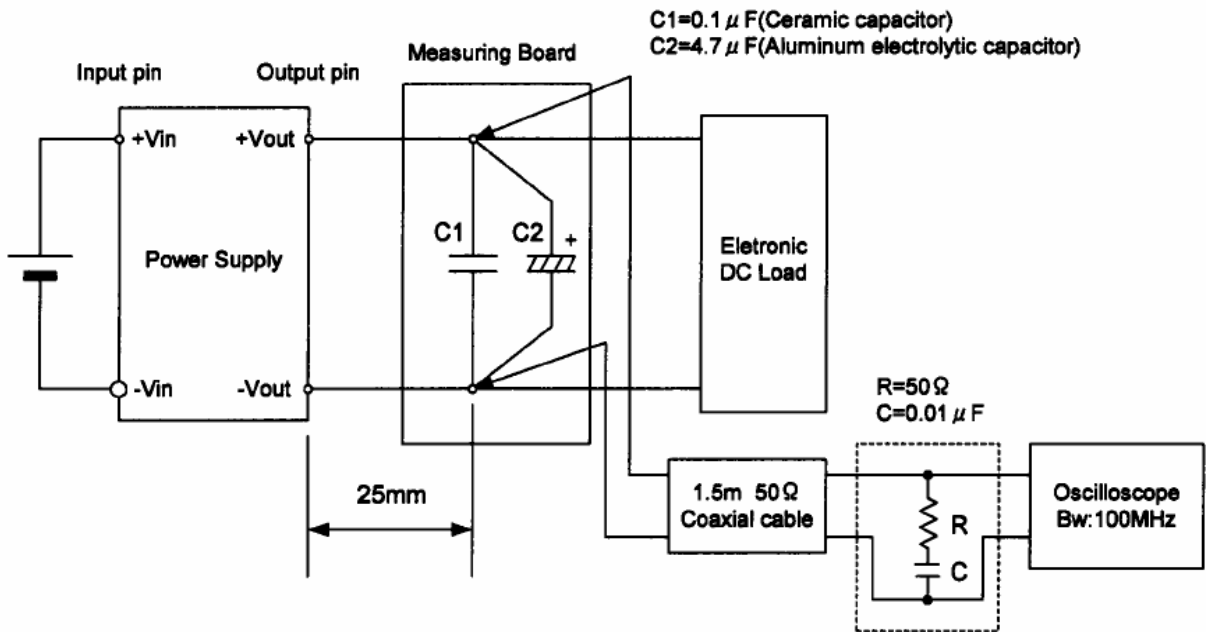


Figure B (Ripple and Ripple noise Characteristic)