

TEST DATA OF SUTS3483R3

Regulated DC Power Supply
February 23, 2009

Approved by : Kazunari Asano
Kazunari Asano Design Manager

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Sho Saito Design Engineer

COSEL CO.,LTD.

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Model	SUTS3483R3																																																																																	
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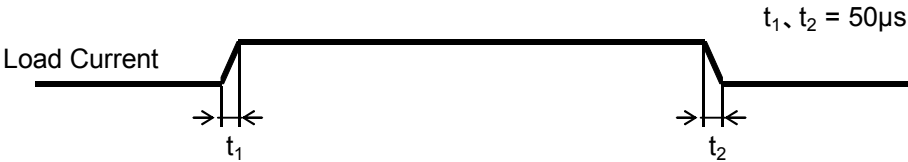
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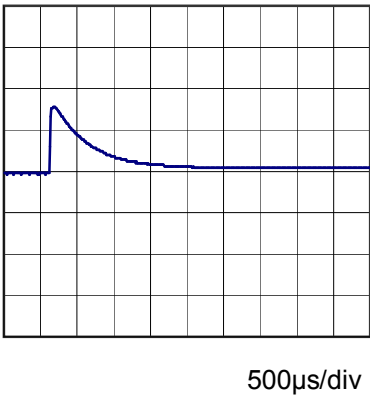
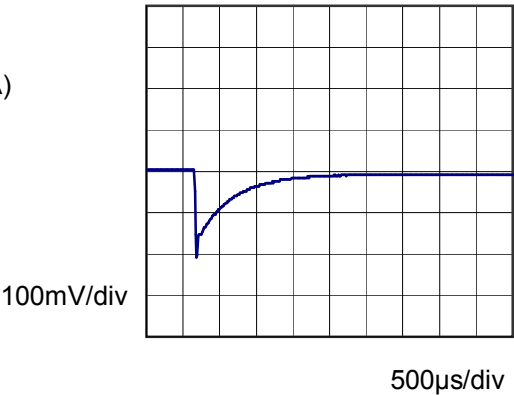


Model		SUTS3483R3	Temperature 25°C Testing Circuitry Figure A
Item		Dynamic Load Response	
Object		+3.3V0.6A	

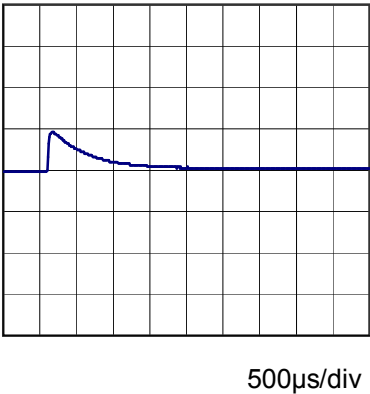
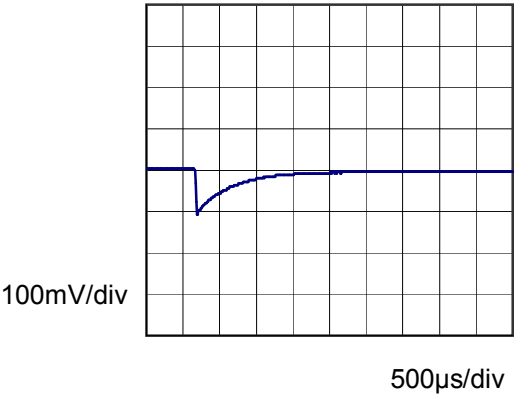
Input Volt. 48 V
Cycle 100 mS



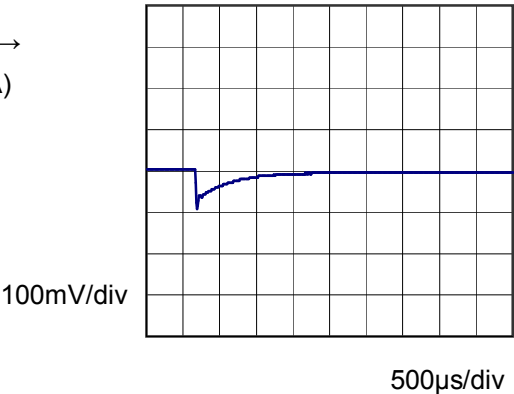
Min. Load (0A) \longleftrightarrow
Load 100% (0.6A)



Min. Load (0A) \longleftrightarrow
Load 50% (0.3A)



Load 50% (0.3A) \longleftrightarrow
Load 100% (0.6A)




Model	SUTS3483R3																																								
Item	Ripple Voltage (by Load Current)	Temperature	25°C																																						
		Testing Circuitry	Figure B																																						
Object	+3.3V0.6A																																								
1.Graph		2.Values																																							
<div><div><div><div></div><div>—△—</div><div>Input Volt.</div><div>36V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>76V</div></div></div><div><p>Ripple Voltage [mV]</p><p>Load Current [A]</p></div></div>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 36 [V]</th><th>Input Volt. 76 [V]</th></tr><tr><td>0.00</td><td>2</td><td>2</td></tr><tr><td>0.12</td><td>3</td><td>2</td></tr><tr><td>0.24</td><td>5</td><td>4</td></tr><tr><td>0.36</td><td>8</td><td>5</td></tr><tr><td>0.48</td><td>11</td><td>6</td></tr><tr><td>0.60</td><td>14</td><td>7</td></tr><tr><td>0.66</td><td>18</td><td>9</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Ripple Voltage [mV]		Input Volt. 36 [V]	Input Volt. 76 [V]	0.00	2	2	0.12	3	2	0.24	5	4	0.36	8	5	0.48	11	6	0.60	14	7	0.66	18	9	--	-	-	--	-	-	--	-	-	--	-	-
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<p>Ripple Voltage is shown as p-p in the figure below.</p> <p>Note: Slanted line shows the range of the rated load current.</p>																																									
<div><div><p>Ripple [mVp-p]</p></div><p>Fig.Complex Ripple Wave Form</p></div>																																									

Model	SUTS3483R3																																								
Item	Ripple-Noise	Temperature	25°C																																						
Object	+3.3V0.6A	Testing Circuitry	Figure B																																						
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Model	SUTS3483R3																																								
Item	Ripple Voltage (by Ambient Temp.)	Testing Circuitry Figure B																																							
Object	+3.3V0.6A																																								
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<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <p>Ripple Voltage [mV]</p> <p>Ambient Temperature [°C]</p> <p>Input Volt. 48V</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>-60</td><td>11</td><td>23</td></tr><tr><td>-40</td><td>8</td><td>20</td></tr><tr><td>-20</td><td>8</td><td>19</td></tr><tr><td>0</td><td>7</td><td>15</td></tr><tr><td>25</td><td>6</td><td>12</td></tr><tr><td>55</td><td>5</td><td>9</td></tr><tr><td>60</td><td>5</td><td>9</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Ripple Voltage [mV]		Load 50%	Load 100%	-60	11	23	-40	8	20	-20	8	19	0	7	15	25	6	12	55	5	9	60	5	9	--	-	-	--	-	-	--	-	-	--	-	-
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Model	SUTS3483R3																																																					
Item	Ambient Temperature Drift	Testing Circuitry Figure A																																																				
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<div><div><div>—△—</div><div>Input Volt.</div><div>36V</div></div><div><div>---□---</div><div>Input Volt.</div><div>48V</div></div><div><div>---○---</div><div>Input Volt.</div><div>76V</div></div></div> <p>Output Voltage [V]</p> <p>Ambient Temperature [°C]</p> <p>Load 100%</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>-60</td><td>3.292</td><td>3.293</td><td>3.293</td></tr><tr><td>-40</td><td>3.303</td><td>3.303</td><td>3.304</td></tr><tr><td>-20</td><td>3.311</td><td>3.312</td><td>3.312</td></tr><tr><td>0</td><td>3.316</td><td>3.317</td><td>3.317</td></tr><tr><td>25</td><td>3.318</td><td>3.319</td><td>3.319</td></tr><tr><td>55</td><td>3.317</td><td>3.317</td><td>3.317</td></tr><tr><td>60</td><td>3.316</td><td>3.316</td><td>3.316</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Output Voltage [V]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	-60	3.292	3.293	3.293	-40	3.303	3.303	3.304	-20	3.311	3.312	3.312	0	3.316	3.317	3.317	25	3.318	3.319	3.319	55	3.317	3.317	3.317	60	3.316	3.316	3.316	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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Model	SUTS3483R3		
Item	Output Voltage Accuracy		Testing Circuitry Figure A
Object	+3.3V0.6A		

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 : 36 - 76V

Load Current : 0 - 0.6A

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

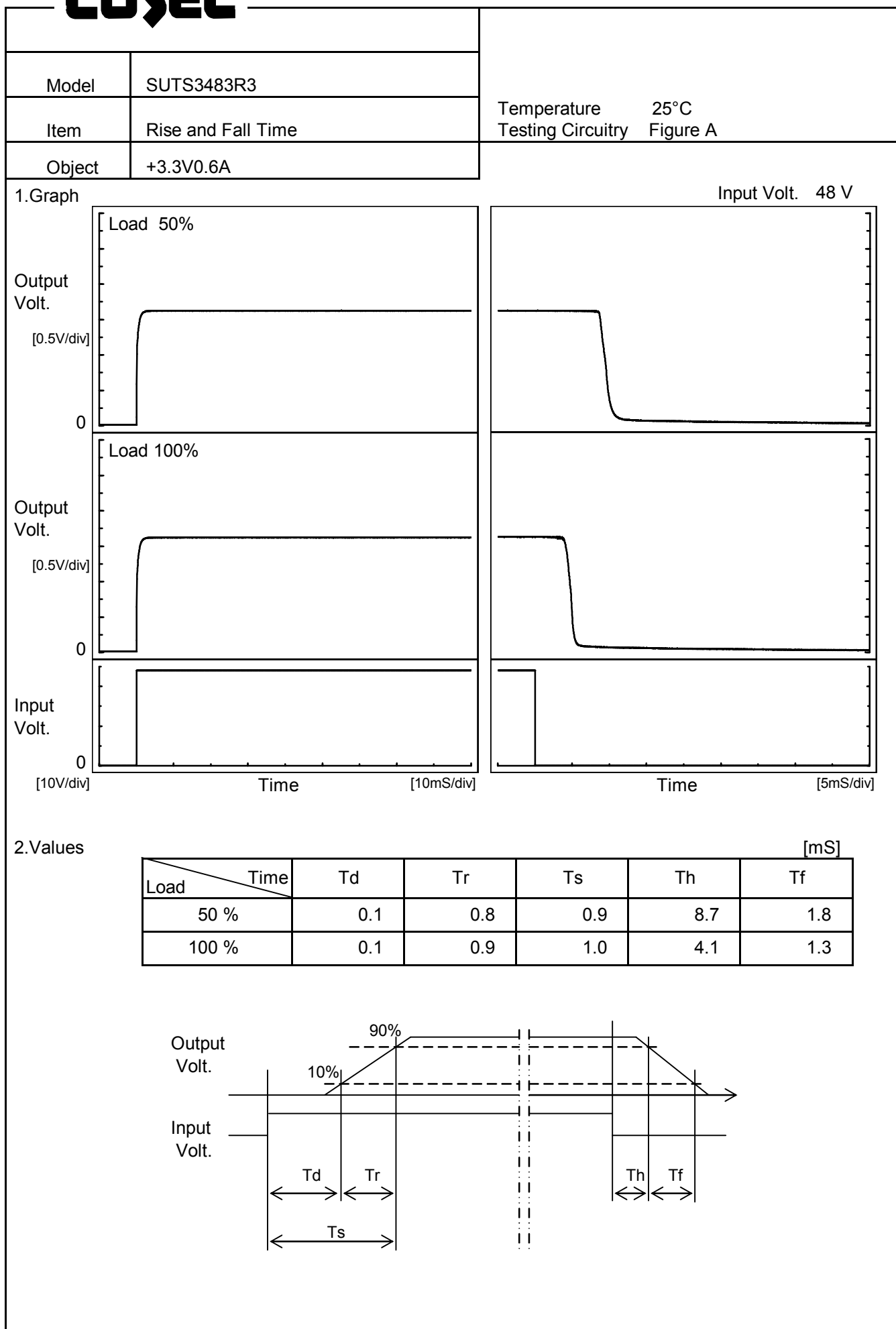
* Output Voltage Accuracy (Ratio) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	25	76	0	3.325	±11	±0.3
Minimum Voltage	-40	36	0.6	3.303		



Model	SUTS3483R3		
Item	Time Lapse Drift	Temperature	25°C
		Testing Circuitry	Figure A
Object	+3.3V0.6A		
1.Graph		2.Values	
<div><div><div>Output Voltage [V]</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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		Testing Circuitry Figure A
Model	SUTS3483R3	
Item	Minimum Input Voltage for Regulated Output Voltage	
Object	+3.3V0.6A	
1.Graph		2.Values
<div><div><div>---</div><div>□</div><div>---</div><div>Load 50%</div></div><div><div>—</div><div>△</div><div>—</div><div>Load 100%</div></div></div> <p>Input Voltage [V]</p> <p>Ambient Temperature [°C]</p> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		

Model	SUTS3483R3																																																									
Item	Overcurrent Protection	Temperature	25°C																																																							
		Testing Circuitry	Figure A																																																							
Object	+3.3V0.6A																																																									
1.Graph		2.Values																																																								
<div><div><div></div><div>Input Volt.</div><div>36V</div></div><div><div></div><div>Input Volt.</div><div>48V</div></div><div><div></div><div>Input Volt.</div><div>76V</div></div></div> <p>Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="3">Load Current [A]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>3.30</td><td>0.62</td><td>0.62</td><td>0.62</td></tr><tr><td>3.14</td><td>0.93</td><td>1.00</td><td>0.96</td></tr><tr><td>2.97</td><td>0.95</td><td>1.02</td><td>0.97</td></tr><tr><td>2.64</td><td>0.99</td><td>1.05</td><td>1.00</td></tr><tr><td>2.31</td><td>1.04</td><td>1.09</td><td>1.02</td></tr><tr><td>1.98</td><td>1.08</td><td>1.11</td><td>1.03</td></tr><tr><td>1.65</td><td>1.12</td><td>1.14</td><td>1.03</td></tr><tr><td>1.32</td><td>1.15</td><td>1.16</td><td>1.03</td></tr><tr><td>0.99</td><td>1.17</td><td>1.15</td><td>1.01</td></tr><tr><td>0.66</td><td>1.15</td><td>1.11</td><td>0.96</td></tr><tr><td>0.33</td><td>1.11</td><td>1.05</td><td>0.89</td></tr><tr><td>0.00</td><td>1.02</td><td>0.97</td><td>0.88</td></tr></table>		Output Voltage [V]	Load Current [A]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	3.30	0.62	0.62	0.62	3.14	0.93	1.00	0.96	2.97	0.95	1.02	0.97	2.64	0.99	1.05	1.00	2.31	1.04	1.09	1.02	1.98	1.08	1.11	1.03	1.65	1.12	1.14	1.03	1.32	1.15	1.16	1.03	0.99	1.17	1.15	1.01	0.66	1.15	1.11	0.96	0.33	1.11	1.05	0.89	0.00	1.02	0.97	0.88
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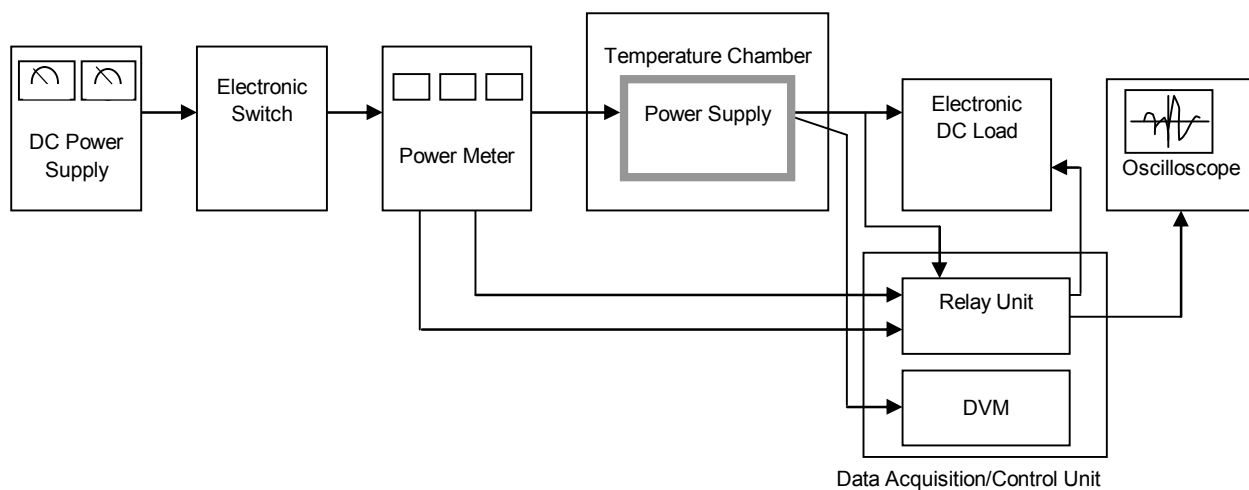


Figure A

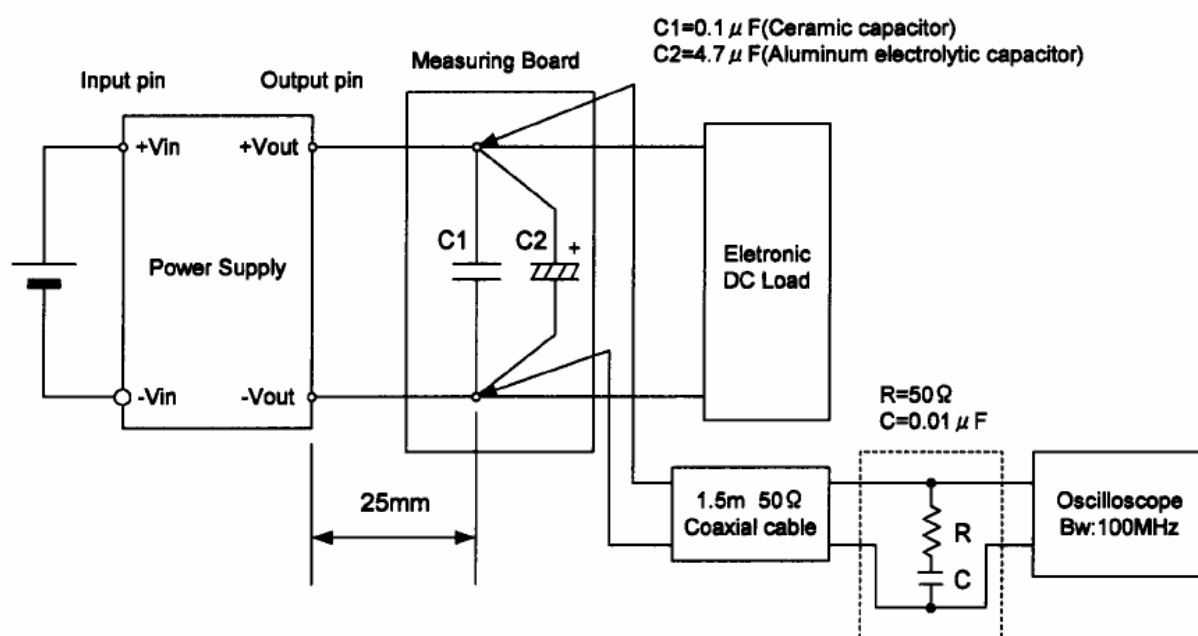


Figure B (Ripple and Ripple noise Characteristic)