

TEST DATA OF SUTS10123R3

Regulated DC Power Supply
February 9, 2009

Approved by : Kazunari Asano
Kazunari Asano Design Manager

Prepared by : Sho Saito
Sho Saito Design Engineer

COSEL CO.,LTD.

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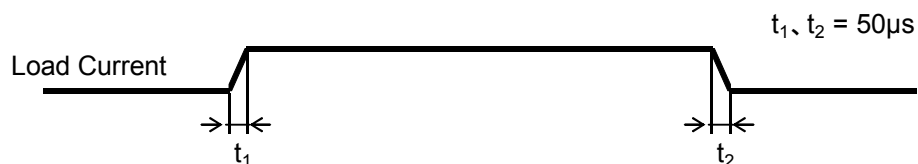
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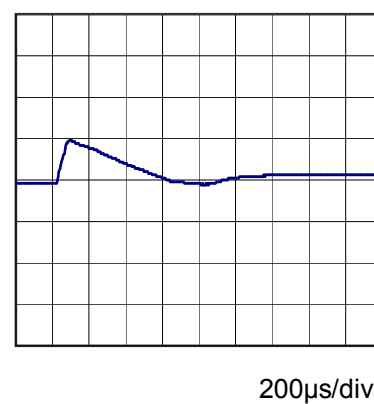
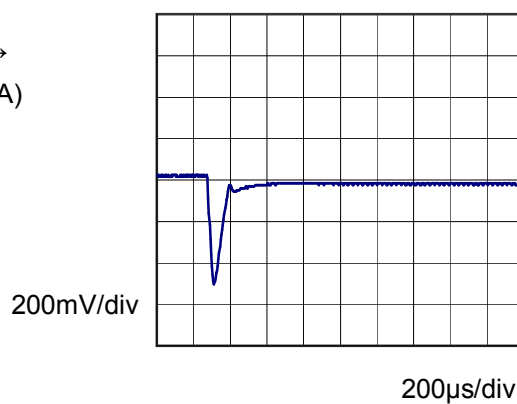


Model	SUTS10123R3	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+3.3V2.6A	

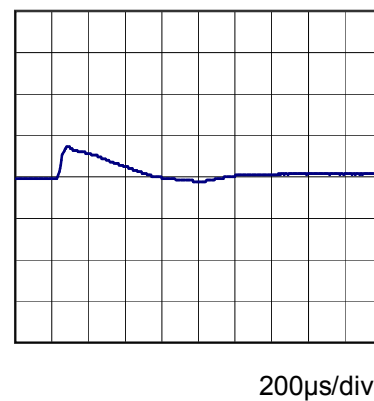
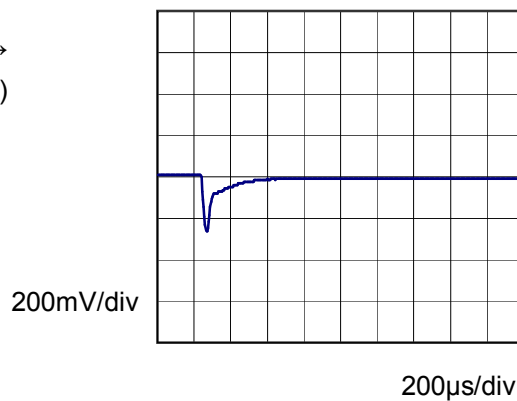
Input Volt. 12 V
Cycle 100 mS



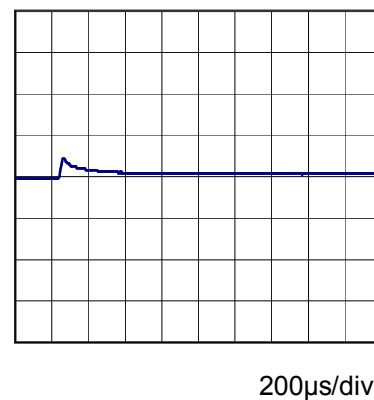
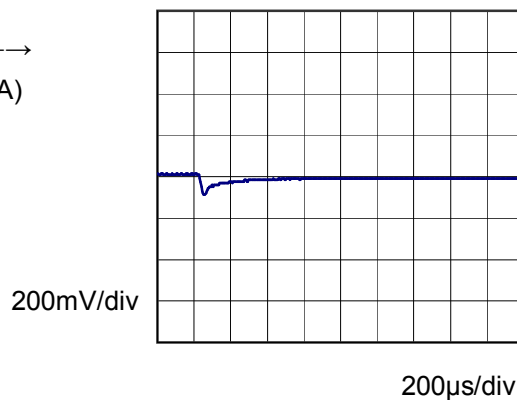
Min. Load (0A) \longleftrightarrow
Load 100% (2.6A)



Min. Load (0A) \longleftrightarrow
Load 50% (1.3A)



Load 50% (1.3A) \longleftrightarrow
Load 100% (2.6A)

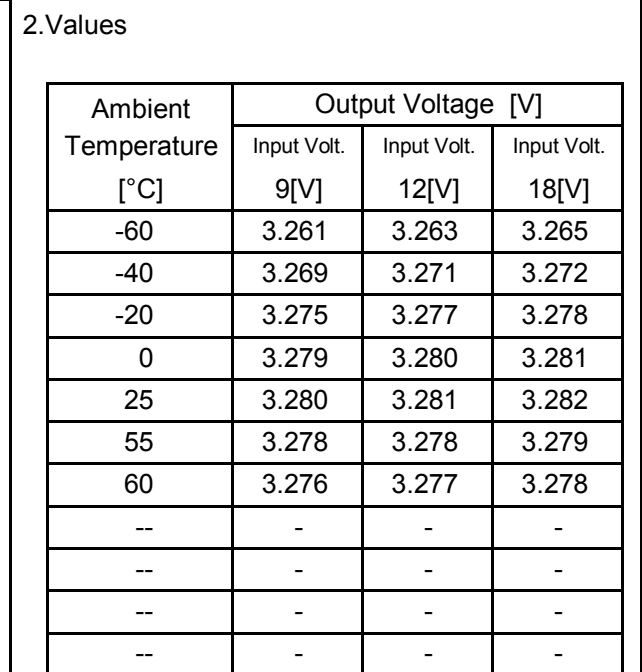


Model	SUTS10123R3																																								
Item	Ripple Voltage (by Load Current)	Temperature	25°C																																						
		Testing Circuitry	Figure B																																						
Object	+3.3V2.6A																																								
1.Graph		2.Values																																							
<div><div><div>—△—</div><div>Input Volt.</div><div>9V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>18V</div></div></div> <p>Ripple Voltage is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 9 [V]</th><th>Input Volt. 18 [V]</th></tr><tr><td>0.00</td><td>1</td><td>2</td></tr><tr><td>0.52</td><td>7</td><td>8</td></tr><tr><td>1.04</td><td>13</td><td>13</td></tr><tr><td>1.56</td><td>17</td><td>16</td></tr><tr><td>2.08</td><td>20</td><td>17</td></tr><tr><td>2.60</td><td>24</td><td>20</td></tr><tr><td>2.86</td><td>27</td><td>22</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. 9 [V]	Input Volt. 18 [V]	0.00	1	2	0.52	7	8	1.04	13	13	1.56	17	16	2.08	20	17	2.60	24	20	2.86	27	22	--	-	-	--	-	-	--	-	-	--	-	-
Load Current [A]	Ripple Voltage [mV]																																								
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<p>Ripple [mVp-p]</p> <p>Fig.Complex Ripple Wave Form</p>																																									

Model	SUTS10123R3																																								
Item	Ripple-Noise	Temperature	25°C																																						
Object	+3.3V2.6A	Testing Circuitry	Figure B																																						
1.Graph		2.Values																																							
<div><div><div>—△—</div><div>Input Volt.</div><div>9V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>18V</div></div></div> <p>Measured by 150 MHz Oscilloscope. Ripple-Noise is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple-Noise [mV]</th></tr><tr><th>Input Volt. 9 [V]</th><th>Input Volt. 18 [V]</th></tr><tr><td>0.00</td><td>3</td><td>9</td></tr><tr><td>0.52</td><td>13</td><td>14</td></tr><tr><td>1.04</td><td>19</td><td>19</td></tr><tr><td>1.56</td><td>24</td><td>23</td></tr><tr><td>2.08</td><td>29</td><td>29</td></tr><tr><td>2.60</td><td>34</td><td>32</td></tr><tr><td>2.86</td><td>39</td><td>33</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-Noise [mV]		Input Volt. 9 [V]	Input Volt. 18 [V]	0.00	3	9	0.52	13	14	1.04	19	19	1.56	24	23	2.08	29	29	2.60	34	32	2.86	39	33	--	-	-	--	-	-	--	-	-	--	-	-
Load Current [A]	Ripple-Noise [mV]																																								
	Input Volt. 9 [V]	Input Volt. 18 [V]																																							
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<p>Fig.Complex Ripple Noise Wave Form</p>																																									


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Testing Circuitry Figure A



BC-10292



		
Model	SUTS10123R3	
Item	Output Voltage Accuracy	
Object	+3.3V2.6A	
		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 : 9 - 18V

Load Current : 0 - 2.6A

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

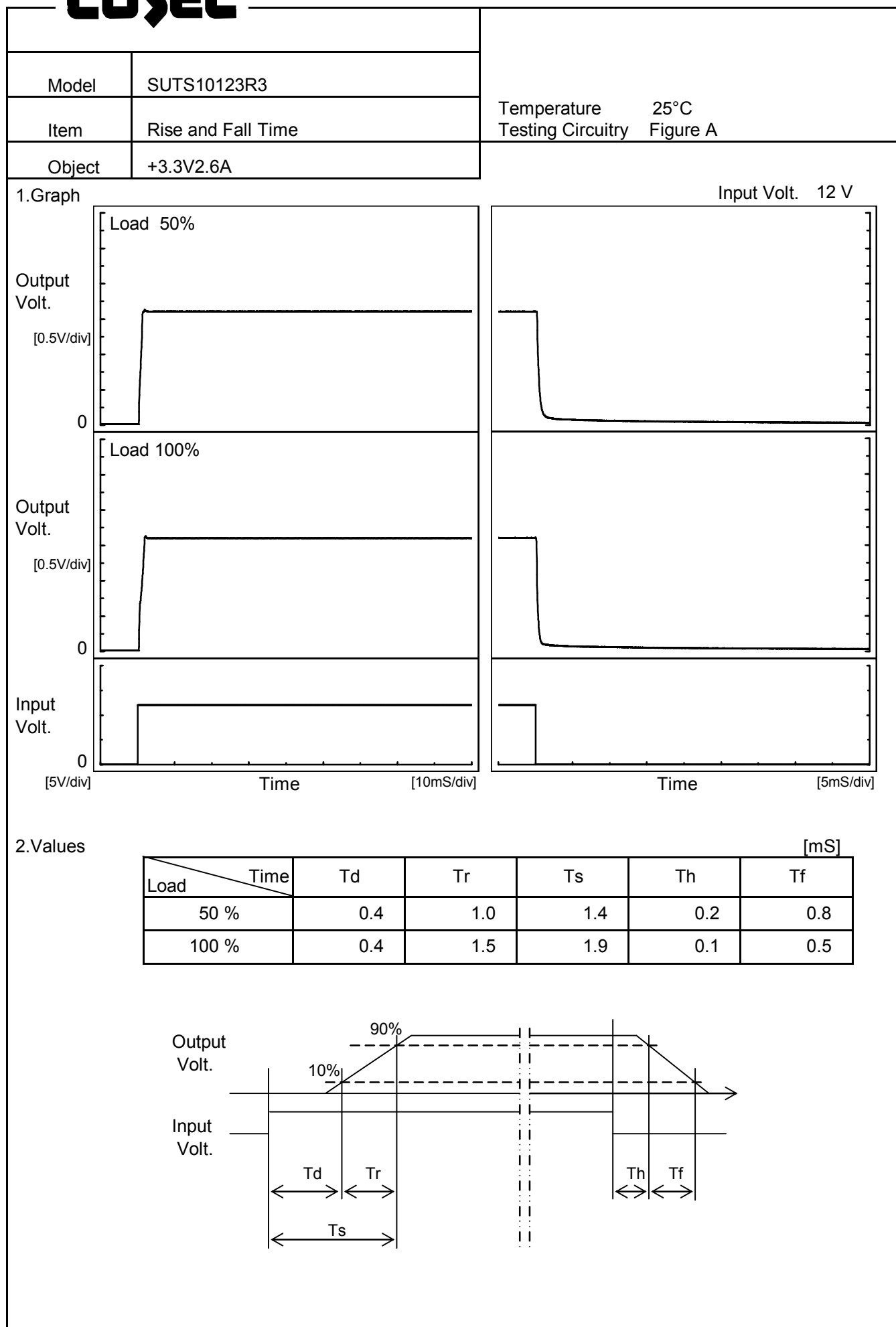
* Output Voltage Accuracy (Ratio) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	25	18	0	3.305	±18	±0.5
Minimum Voltage	-40	9	2.6	3.269		



Model	SUTS10123R3		
Item	Time Lapse Drift	Temperature	25°C
		Testing Circuitry	Figure A
Object	+3.3V2.6A		
1.Graph		2.Values	
<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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Model

SUTS10123R3

Item

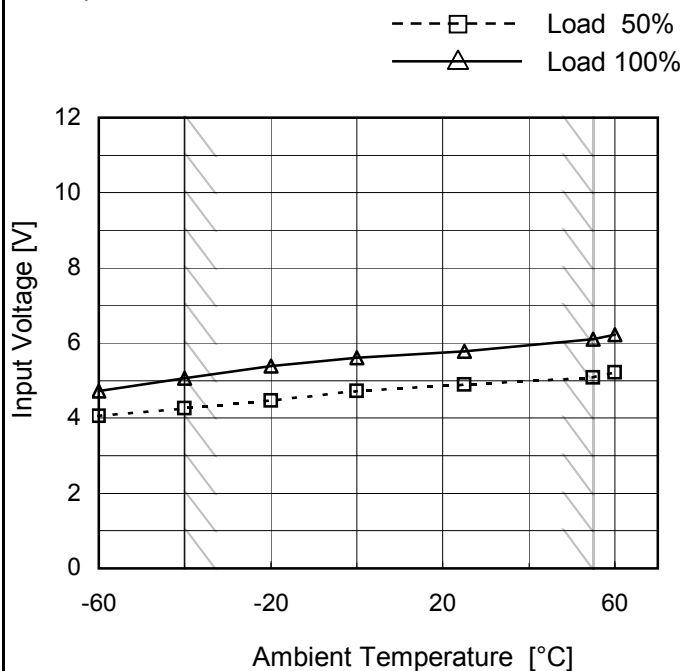
Minimum Input Voltage
for Regulated Output Voltage

Object

+3.3V2.6A

Testing Circuitry Figure A

1. Graph



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

2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	4.1	4.8
-40	4.3	5.1
-20	4.5	5.4
0	4.8	5.6
25	4.9	5.8
55	5.1	6.1
60	5.3	6.3
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Model	SUTS10123R3																																																									
Item	Overcurrent Protection	Temperature	25°C																																																							
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1.Graph		2.Values																																																								
<div><div><div></div><div></div><div></div></div><div><div>Input Volt. 9V</div><div>Input Volt. 12V</div><div>Input Volt. 18V</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. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th></tr><tr><td>3.30</td><td>2.61</td><td>2.61</td><td>2.61</td></tr><tr><td>3.14</td><td>3.59</td><td>3.79</td><td>3.92</td></tr><tr><td>2.97</td><td>3.67</td><td>3.89</td><td>4.02</td></tr><tr><td>2.64</td><td>3.76</td><td>3.93</td><td>3.99</td></tr><tr><td>2.31</td><td>3.73</td><td>3.89</td><td>3.91</td></tr><tr><td>1.98</td><td>3.69</td><td>3.85</td><td>3.82</td></tr><tr><td>1.65</td><td>3.65</td><td>3.81</td><td>3.73</td></tr><tr><td>1.32</td><td>3.65</td><td>3.77</td><td>3.64</td></tr><tr><td>0.99</td><td>3.72</td><td>3.79</td><td>3.62</td></tr><tr><td>0.66</td><td>3.86</td><td>3.91</td><td>3.60</td></tr><tr><td>0.33</td><td>4.17</td><td>4.09</td><td>3.69</td></tr><tr><td>0.00</td><td>4.80</td><td>4.55</td><td>4.10</td></tr></table>		Output Voltage [V]	Load Current [A]			Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	3.30	2.61	2.61	2.61	3.14	3.59	3.79	3.92	2.97	3.67	3.89	4.02	2.64	3.76	3.93	3.99	2.31	3.73	3.89	3.91	1.98	3.69	3.85	3.82	1.65	3.65	3.81	3.73	1.32	3.65	3.77	3.64	0.99	3.72	3.79	3.62	0.66	3.86	3.91	3.60	0.33	4.17	4.09	3.69	0.00	4.80	4.55	4.10
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Figure A

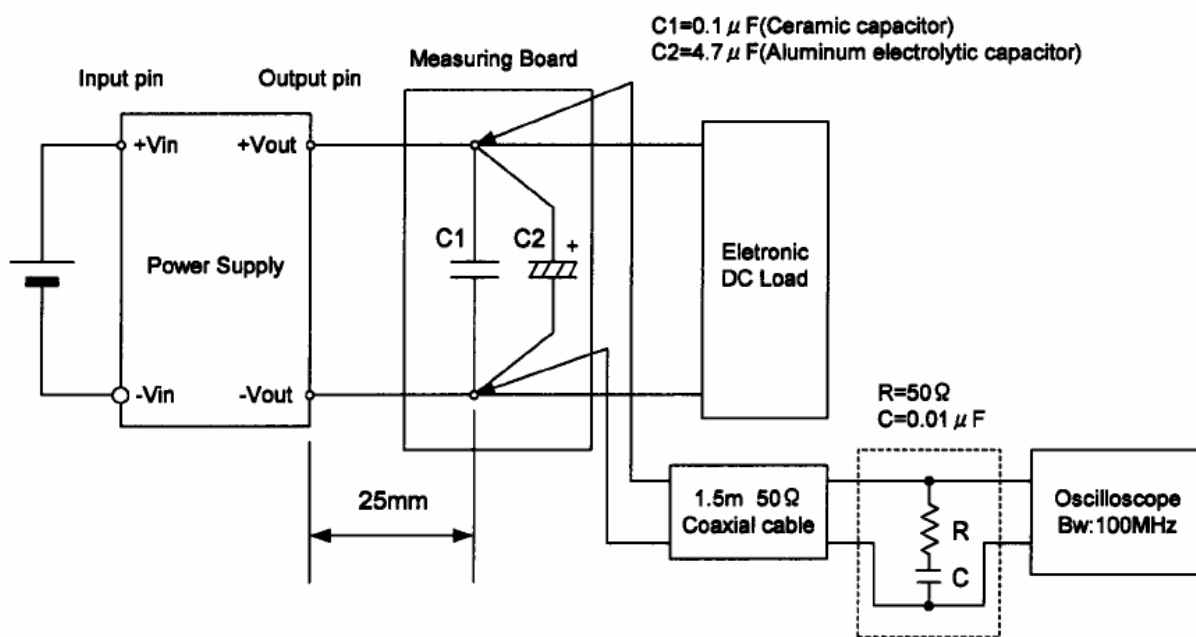


Figure B (Ripple and Ripple noise Characteristic)