

TEST DATA OF MUW30515

Regulated DC Power Supply
February 6, 2025

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Design Manager

Prepared by : Soichiro Kawaguchi
Design Engineer

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| Model | MUW30515 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item | Input Current (by Load Current) | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div>—△—</div><div>Input Volt.</div><div>4.5V</div></div><div><div>---□---</div><div>Input Volt.</div><div>5V</div></div><div><div>---○---</div><div>Input Volt.</div><div>9V</div></div></div> <p>Input Current [A]</p> <p>Load Ratio [%]</p> | | <table><tr><th rowspan="2">Load Ratio [%]</th><th colspan="3">Input Current [A]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>0</td><td>0.033</td><td>0.031</td><td>0.025</td></tr><tr><td>20</td><td>0.172</td><td>0.156</td><td>0.097</td></tr><tr><td>40</td><td>0.320</td><td>0.290</td><td>0.169</td></tr><tr><td>60</td><td>0.479</td><td>0.430</td><td>0.244</td></tr><tr><td>80</td><td>0.641</td><td>0.573</td><td>0.319</td></tr><tr><td>100</td><td>0.810</td><td>0.721</td><td>0.397</td></tr><tr><td>110</td><td>0.899</td><td>0.797</td><td>0.435</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> | | Load Ratio [%] | Input Current [A] | | | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | 0 | 0.033 | 0.031 | 0.025 | 20 | 0.172 | 0.156 | 0.097 | 40 | 0.320 | 0.290 | 0.169 | 60 | 0.479 | 0.430 | 0.244 | 80 | 0.641 | 0.573 | 0.319 | 100 | 0.810 | 0.721 | 0.397 | 110 | 0.899 | 0.797 | 0.435 | -- | - | - | - | -- | - | - | - | -- | - | - | - | -- | - | - | - |
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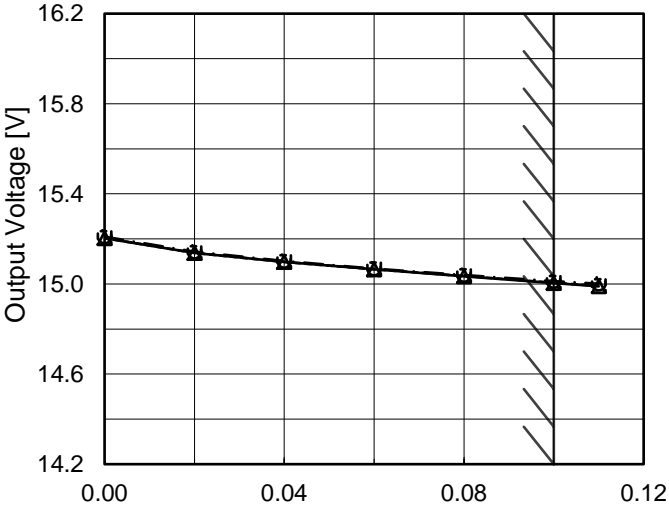
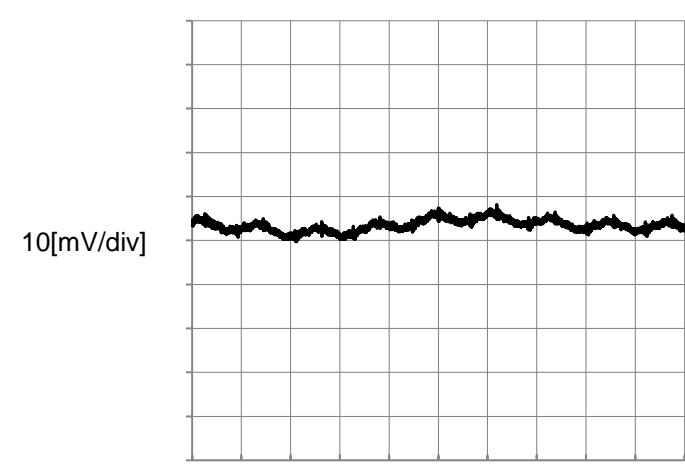
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| Item | Efficiency (by Load Current) | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Testing Circuitry | Figure A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Load Ratio [%] | Efficiency [%] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 20 | 75.1 | 75.1 | 66.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 82.4 | 81.7 | 77.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 83.5 | 83.6 | 81.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 84.1 | 84.4 | 83.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 83.9 | 84.4 | 83.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 | 83.6 | 84.1 | 84.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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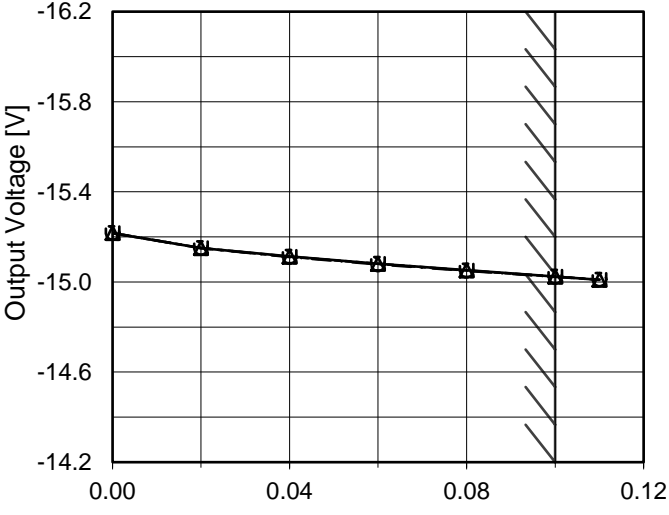
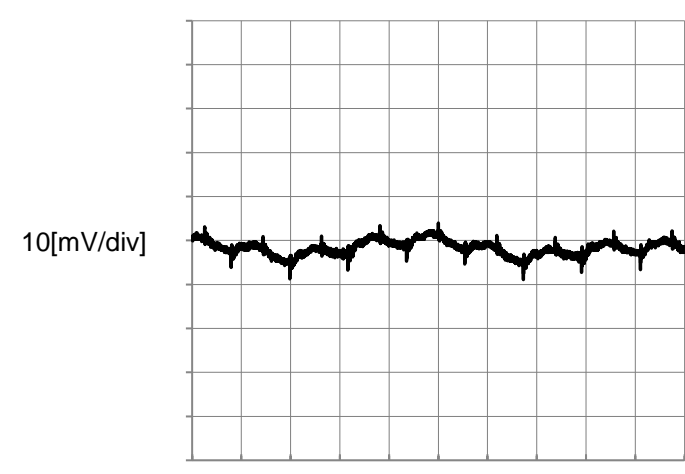
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| Model | MUW30515 | | |
| Item | Line Regulation | Temperature | 25°C |
| Object | +15V0.1A | Testing Circuitry | Figure A |
| 1.Graph | | 2.Values | |
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| Model | MUW30515 | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item | Load Regulation | Testing Circuitry | Figure A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | +15V0.1A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div><div>—△—</div><div>Input Volt.</div><div>4.5V</div></div><div><div>---□---</div><div>Input Volt.</div><div>5V</div></div><div><div>---○---</div><div>Input Volt.</div><div>9V</div></div></div><div></div><div>Note: Slanted line shows the range of the rated load current.</div></div> | | <table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>0.00</td><td>15.203</td><td>15.204</td><td>15.210</td></tr><tr><td>0.02</td><td>15.138</td><td>15.138</td><td>15.143</td></tr><tr><td>0.04</td><td>15.098</td><td>15.098</td><td>15.102</td></tr><tr><td>0.06</td><td>15.065</td><td>15.065</td><td>15.069</td></tr><tr><td>0.08</td><td>15.034</td><td>15.035</td><td>15.040</td></tr><tr><td>0.10</td><td>15.004</td><td>15.006</td><td>15.013</td></tr><tr><td>0.11</td><td>14.990</td><td>14.991</td><td>15.001</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> <div>-15V:Rated Load Current</div> | | Load Current [A] | Output Voltage [V] | | | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | 0.00 | 15.203 | 15.204 | 15.210 | 0.02 | 15.138 | 15.138 | 15.143 | 0.04 | 15.098 | 15.098 | 15.102 | 0.06 | 15.065 | 15.065 | 15.069 | 0.08 | 15.034 | 15.035 | 15.040 | 0.10 | 15.004 | 15.006 | 15.013 | 0.11 | 14.990 | 14.991 | 15.001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Load Current [A] | Output Voltage [V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 15.203 | 15.204 | 15.210 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 15.138 | 15.138 | 15.143 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.04 | 15.098 | 15.098 | 15.102 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.06 | 15.065 | 15.065 | 15.069 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.08 | 15.034 | 15.035 | 15.040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.10 | 15.004 | 15.006 | 15.013 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.11 | 14.990 | 14.991 | 15.001 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item | Ripple-Noise | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | +15V0.1A | Testing Circuitry | Figure B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div>Input Voltage</div><div>5V</div></div><div><div>Load</div><div>100%</div></div><div></div><div>-15V:Rated Load Current</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| COSEL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------|---|------------------|------------------|--------------------|--|--|--------------------|------------------|------------------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Model | MUW30515 | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item | Load Regulation | Testing Circuitry | Figure A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | -15V0.1A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div><div>—△—</div><div>Input Volt.</div><div>4.5V</div></div><div><div>---□---</div><div>Input Volt.</div><div>5V</div></div><div><div>---○---</div><div>Input Volt.</div><div>9V</div></div></div><div></div><p>Note: Slanted line shows the range of the rated load current.</p></div> | | <table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>0.00</td><td>-15.217</td><td>-15.217</td><td>-15.217</td></tr><tr><td>0.02</td><td>-15.151</td><td>-15.150</td><td>-15.150</td></tr><tr><td>0.04</td><td>-15.113</td><td>-15.112</td><td>-15.110</td></tr><tr><td>0.06</td><td>-15.081</td><td>-15.080</td><td>-15.078</td></tr><tr><td>0.08</td><td>-15.052</td><td>-15.051</td><td>-15.049</td></tr><tr><td>0.10</td><td>-15.023</td><td>-15.023</td><td>-15.023</td></tr><tr><td>0.11</td><td>-15.009</td><td>-15.010</td><td>-15.011</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> <p>+15V:Rated Load Current</p> | | Load Current [A] | Output Voltage [V] | | | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | 0.00 | -15.217 | -15.217 | -15.217 | 0.02 | -15.151 | -15.150 | -15.150 | 0.04 | -15.113 | -15.112 | -15.110 | 0.06 | -15.081 | -15.080 | -15.078 | 0.08 | -15.052 | -15.051 | -15.049 | 0.10 | -15.023 | -15.023 | -15.023 | 0.11 | -15.009 | -15.010 | -15.011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Load Current [A] | Output Voltage [V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | -15.217 | -15.217 | -15.217 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | -15.151 | -15.150 | -15.150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.04 | -15.113 | -15.112 | -15.110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.06 | -15.081 | -15.080 | -15.078 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.08 | -15.052 | -15.051 | -15.049 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.10 | -15.023 | -15.023 | -15.023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.11 | -15.009 | -15.010 | -15.011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | -- | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item | Ripple-Noise | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | -15V0.1A | Testing Circuitry | Figure B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div>Input Voltage</div><div>5V</div></div><div><div>Load</div><div>100%</div></div><div></div><p>+15V:Rated Load Current</p></div> <div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



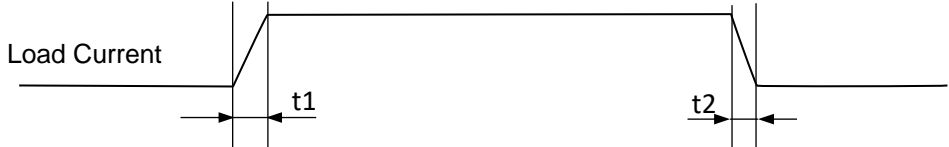
| | | | |
|--------|--|-----------------------|--|
| Model | | MUW30515 | Temperature 25°C Testing Circuitry Figure A |
| Item | | Dynamic Load Response | |
| Object | | +15V0.1A | |

Input Volt. 5 V

-15V:Rated Load Current

Response. t1=t2=50μs. Typ

Cycle 1000 ms



Load 0%(0A) ←→
Load 100%(0.1A)

200[mV/div]



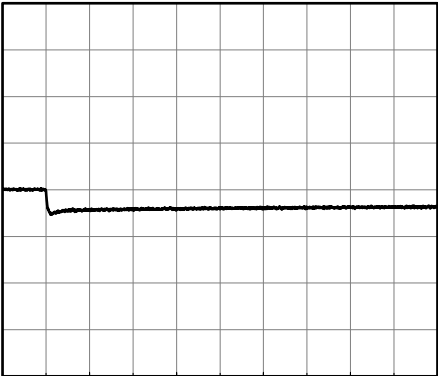
1[ms/div]



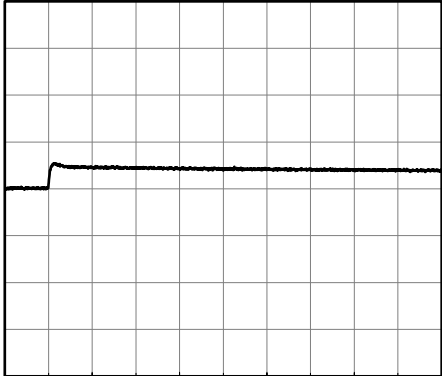
1[ms/div]

Load 50%(0.05A) ←→
Load 100%(0.1A)

200[mV/div]



1[ms/div]



1[ms/div]



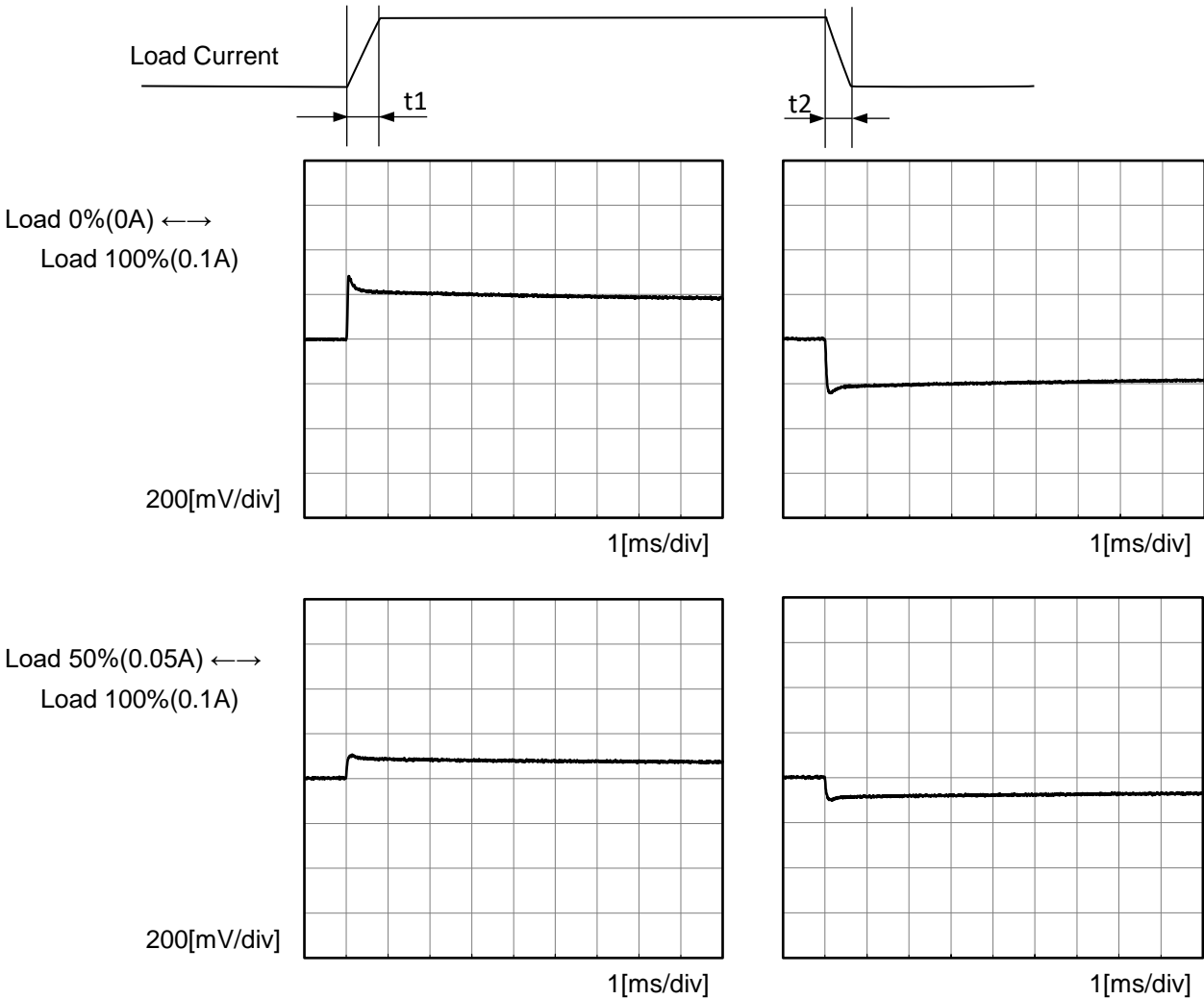
| | | | |
|--------|--|-----------------------|--|
| Model | | MUW30515 | Temperature 25°C Testing Circuitry Figure A |
| Item | | Dynamic Load Response | |
| Object | | -15V0.1A | |

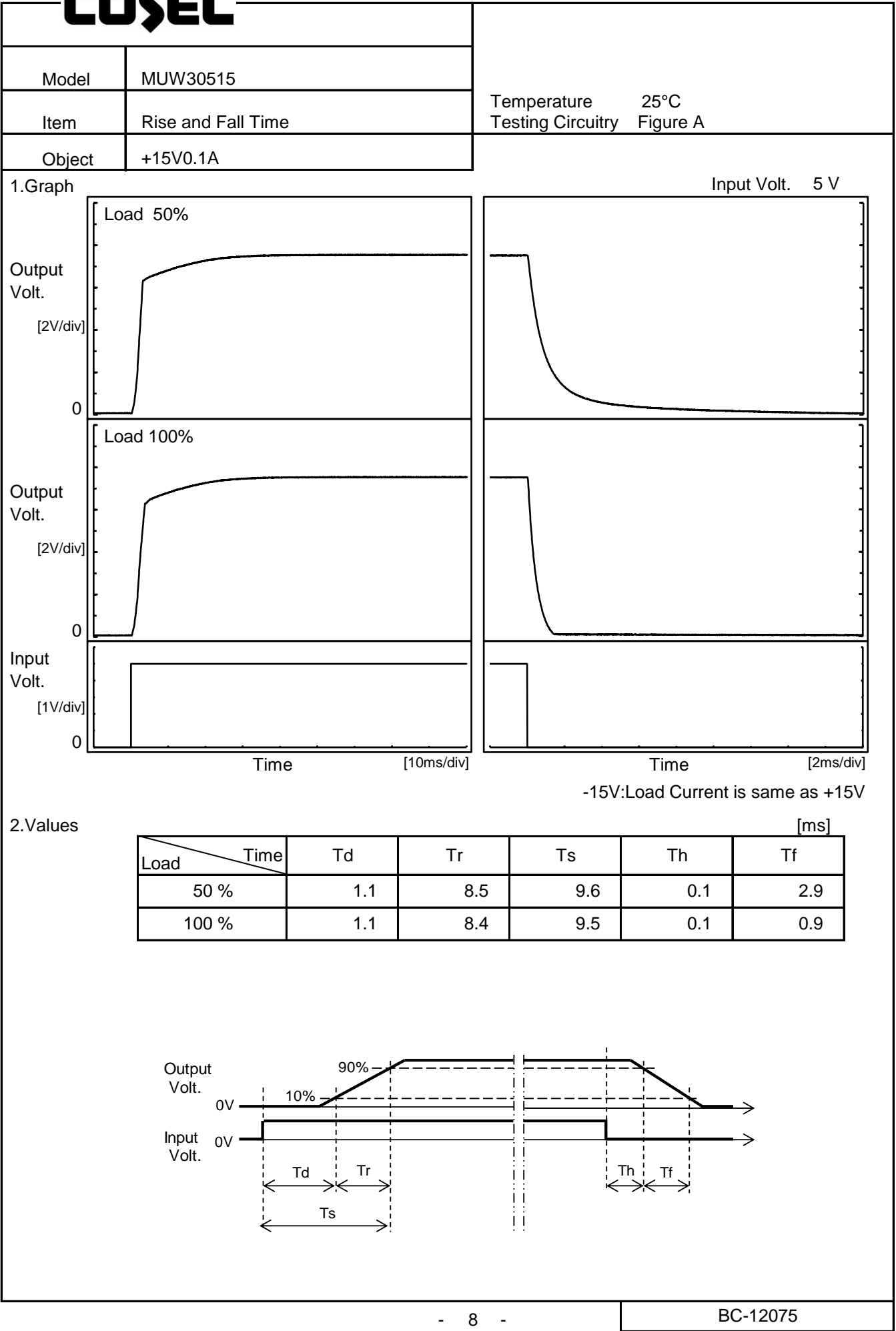
Input Volt. 5 V

+15V:Rated Load Current

Cycle 1000 ms

Response. t1=t2=50μs. Typ

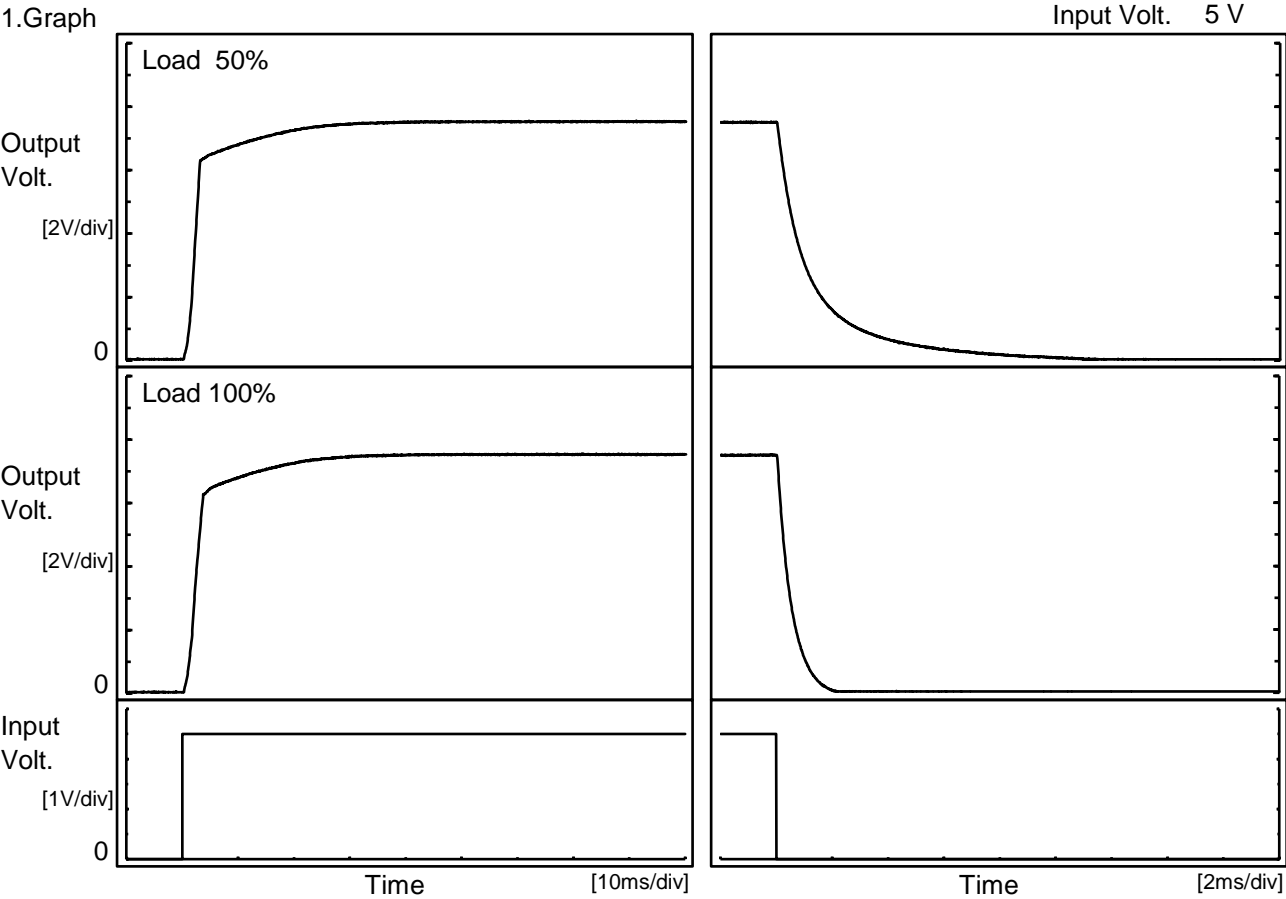






| | | |
|--------|--------------------|--|
| Model | MUW30515 | Temperature 25°C Testing Circuitry Figure A |
| Item | Rise and Fall Time | |
| Object | -15V0.1A | |

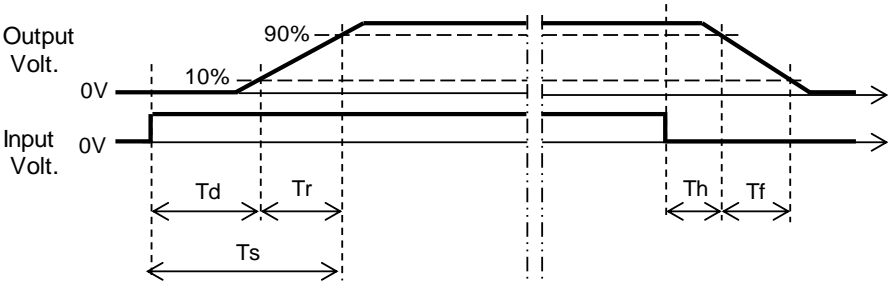
1.Graph



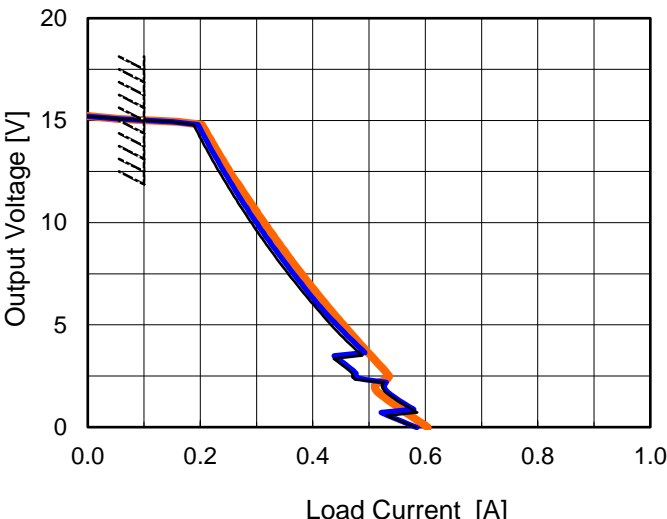
+15V:Load Current is same as -15V

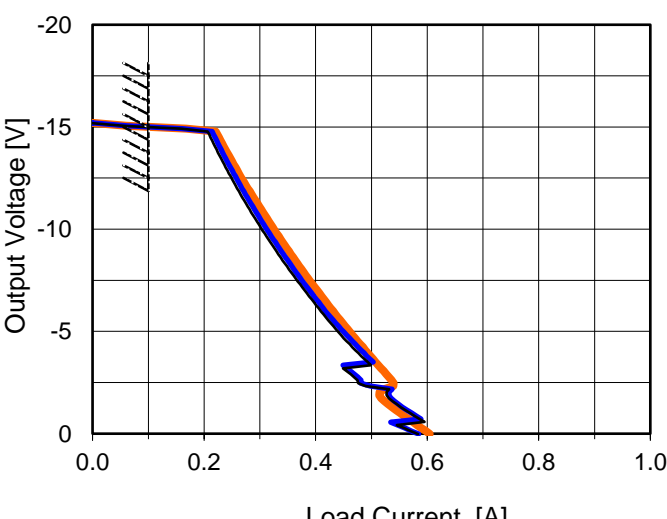
2.Values

| | | [ms] | | | | |
|-------|------|------|-----|-----|-----|-----|
| Load | Time | Td | Tr | Ts | Th | Tf |
| 50 % | | 1.1 | 8.7 | 9.8 | 0.1 | 3.4 |
| 100 % | | 1.1 | 8.6 | 9.7 | 0.1 | 1.1 |



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| Model | | MUW30515 | Temperature | | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|---|---|--|----------|--------------------|------------------|--|--|--------------------|------------------|------------------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|---|---|---|
| Item | | Overcurrent Protection | Testing Circuitry | | Figure A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | | +15V0.1A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | <div><div>Input Volt. 4.5V</div><div>Input Volt. 5V</div><div>Input Volt. 9V</div></div>  | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="3">Load Current [A]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>14.25</td><td>0.20</td><td>0.21</td><td>0.21</td></tr><tr><td>13.50</td><td>0.21</td><td>0.22</td><td>0.23</td></tr><tr><td>12.00</td><td>0.24</td><td>0.25</td><td>0.26</td></tr><tr><td>10.50</td><td>0.28</td><td>0.29</td><td>0.30</td></tr><tr><td>9.00</td><td>0.31</td><td>0.32</td><td>0.34</td></tr><tr><td>7.50</td><td>0.35</td><td>0.36</td><td>0.38</td></tr><tr><td>6.00</td><td>0.40</td><td>0.41</td><td>0.42</td></tr><tr><td>4.50</td><td>0.45</td><td>0.46</td><td>0.47</td></tr><tr><td>3.00</td><td>0.45</td><td>0.46</td><td>0.52</td></tr><tr><td>1.50</td><td>0.54</td><td>0.54</td><td>0.52</td></tr><tr><td>0.00</td><td>0.58</td><td>0.59</td><td>0.60</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table> | | | Output Voltage [V] | Load Current [A] | | | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | 14.25 | 0.20 | 0.21 | 0.21 | 13.50 | 0.21 | 0.22 | 0.23 | 12.00 | 0.24 | 0.25 | 0.26 | 10.50 | 0.28 | 0.29 | 0.30 | 9.00 | 0.31 | 0.32 | 0.34 | 7.50 | 0.35 | 0.36 | 0.38 | 6.00 | 0.40 | 0.41 | 0.42 | 4.50 | 0.45 | 0.46 | 0.47 | 3.00 | 0.45 | 0.46 | 0.52 | 1.50 | 0.54 | 0.54 | 0.52 | 0.00 | 0.58 | 0.59 | 0.60 | -- | - | - | - |
| Output Voltage [V] | Load Current [A] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.25 | 0.20 | 0.21 | 0.21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.50 | 0.21 | 0.22 | 0.23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.00 | 0.24 | 0.25 | 0.26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.50 | 0.28 | 0.29 | 0.30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.00 | 0.31 | 0.32 | 0.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.50 | 0.35 | 0.36 | 0.38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.00 | 0.40 | 0.41 | 0.42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.50 | 0.45 | 0.46 | 0.47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.00 | 0.45 | 0.46 | 0.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.50 | 0.54 | 0.54 | 0.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 0.58 | 0.59 | 0.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | -15V:Rated Load Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Object | | -15V0.1A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|--|---|--|--|--------------------|------------------|--|--|--------------------|------------------|------------------|--------|------|------|------|--------|------|------|------|--------|------|------|------|--------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|------|------|------|------|----|---|---|---|
| 1.Graph | | <div><div>Input Volt. 4.5V</div><div>Input Volt. 5V</div><div>Input Volt. 9V</div></div>  | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="3">Load Current [A]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>-14.25</td><td>0.22</td><td>0.22</td><td>0.23</td></tr><tr><td>-13.50</td><td>0.23</td><td>0.24</td><td>0.24</td></tr><tr><td>-12.00</td><td>0.26</td><td>0.27</td><td>0.27</td></tr><tr><td>-10.50</td><td>0.29</td><td>0.30</td><td>0.31</td></tr><tr><td>-9.00</td><td>0.33</td><td>0.33</td><td>0.35</td></tr><tr><td>-7.50</td><td>0.36</td><td>0.37</td><td>0.39</td></tr><tr><td>-6.00</td><td>0.41</td><td>0.41</td><td>0.43</td></tr><tr><td>-4.50</td><td>0.46</td><td>0.47</td><td>0.48</td></tr><tr><td>-3.00</td><td>0.46</td><td>0.46</td><td>0.52</td></tr><tr><td>-1.50</td><td>0.54</td><td>0.54</td><td>0.52</td></tr><tr><td>0.00</td><td>0.58</td><td>0.58</td><td>0.60</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table> | | | Output Voltage [V] | Load Current [A] | | | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | -14.25 | 0.22 | 0.22 | 0.23 | -13.50 | 0.23 | 0.24 | 0.24 | -12.00 | 0.26 | 0.27 | 0.27 | -10.50 | 0.29 | 0.30 | 0.31 | -9.00 | 0.33 | 0.33 | 0.35 | -7.50 | 0.36 | 0.37 | 0.39 | -6.00 | 0.41 | 0.41 | 0.43 | -4.50 | 0.46 | 0.47 | 0.48 | -3.00 | 0.46 | 0.46 | 0.52 | -1.50 | 0.54 | 0.54 | 0.52 | 0.00 | 0.58 | 0.58 | 0.60 | -- | - | - | - |
| Output Voltage [V] | Load Current [A] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 4.5[V] | Input Volt. 5[V] | Input Volt. 9[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -14.25 | 0.22 | 0.22 | 0.23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -13.50 | 0.23 | 0.24 | 0.24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -12.00 | 0.26 | 0.27 | 0.27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -10.50 | 0.29 | 0.30 | 0.31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -9.00 | 0.33 | 0.33 | 0.35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -7.50 | 0.36 | 0.37 | 0.39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -6.00 | 0.41 | 0.41 | 0.43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -4.50 | 0.46 | 0.47 | 0.48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -3.00 | 0.46 | 0.46 | 0.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -1.50 | 0.54 | 0.54 | 0.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 0.58 | 0.58 | 0.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | +15V:Rated Load Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

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BC-12075

COSEL

| | | | |
|---|---|-------------------------------|----------------|
| COSEL | | Testing Circuitry Figure A | |
| Model | MUW30515 | | |
| Item | Ambient Temperature Drift | | |
| Object | +15V0.1A | | |
| 1.Values Load 100% | | | |
| Ambient Temperature[°C] | Output Voltage [V] | | |
| | Input Volt. 4.5V | Input Volt. 5V | Input Volt. 9V |
| -40 | 14.914 | 14.918 | 14.927 |
| 25 | 15.007 | 15.009 | 15.017 |
| 85 | 15.017 | 15.019 | 15.026 |
| -15V:Load Current is same as +15V | | | |
| Item | Minimum Input Voltage for Regulated Output Voltage | Testing Circuitry Figure A | |
| Object | +15V0.1A | | |
| 1.Values | | | |
| Ambient Temperature[°C] | Input Voltage [V] | | |
| | Load 50% | Load 100% | |
| -40 | 3.0 | 3.1 | |
| 25 | 3.0 | 3.0 | |
| 85 | 3.0 | 3.1 | |
| -15V:Load Current is same as +15V | | | |

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BC-12075

COSEL

| | | |
|--------|---------------------------|----------------------------|
| | | Testing Circuitry Figure A |
| Model | MUW30515 | |
| Item | Ambient Temperature Drift | |
| Object | -15V0.1A | |

1.Values

Load 100%

| Ambient Temperature[°C] | Output Voltage [V] | | |
|-------------------------|--------------------|----------------|----------------|
| | Input Volt. 4.5V | Input Volt. 5V | Input Volt. 9V |
| -40 | -14.935 | -14.936 | -14.937 |
| 25 | -15.024 | -15.024 | -15.025 |
| 85 | -15.033 | -15.033 | -15.034 |

+15V:Load Current is same as -15V

| | | |
|--------|---|----------------------------|
| Item | Minimum Input Voltage for Regulated Output Voltage | Testing Circuitry Figure A |
| Object | -15V0.1A | |

1.Values

| Ambient Temperature[°C] | Input Voltage [V] | |
|-------------------------|-------------------|-----------|
| | Load 50% | Load 100% |
| -40 | 3.0 | 3.1 |
| 25 | 3.0 | 3.0 |
| 85 | 3.0 | 3.1 |

+15V:Load Current is same as -15V

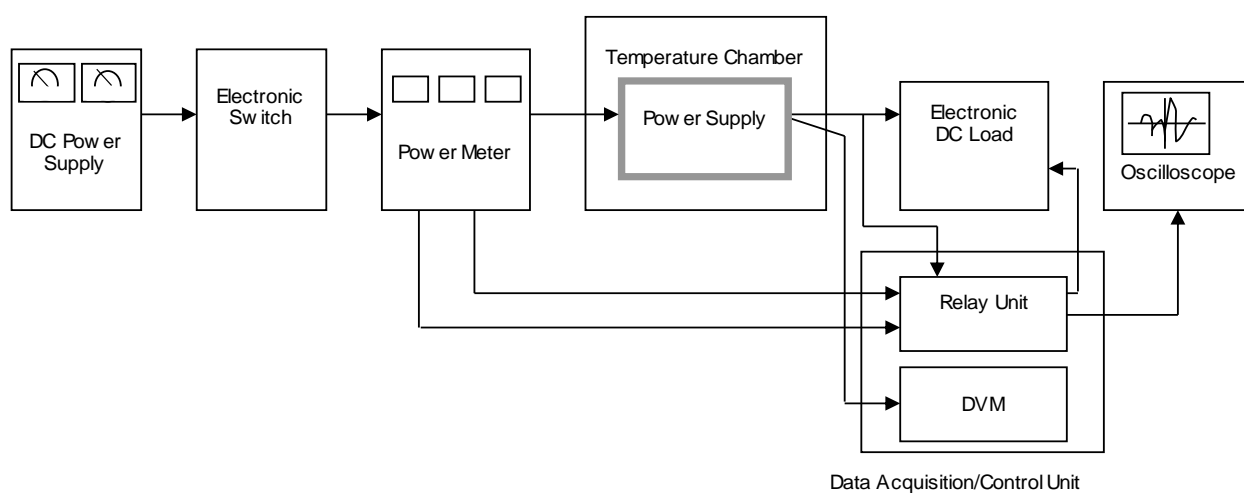


Figure A

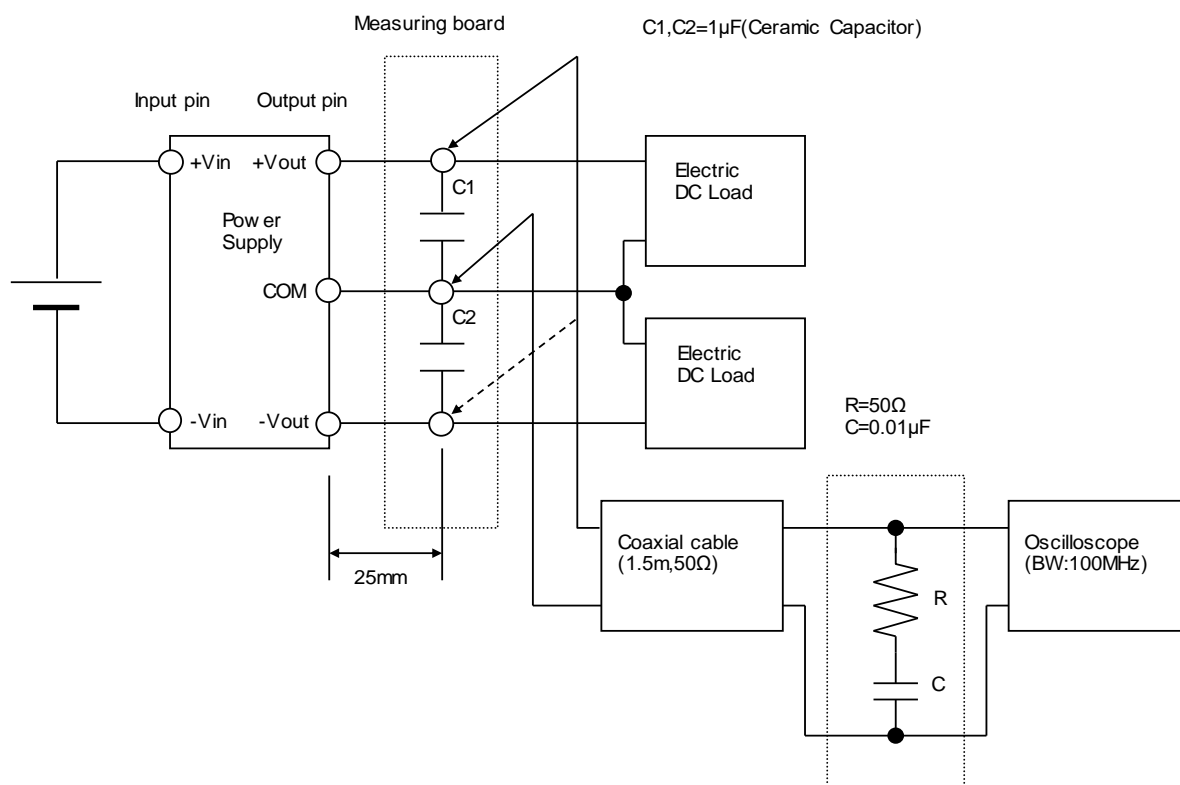


Figure B