



■ Features :

- Universal AC input / Full range
- 2 pole USA plug
- Class II power (without earth pin)
- Full output 5~48V safety approval
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- PWM 3842 control circuit and regulated
- LED indicator for power on
- Approvals: UL / CUL / BSMI / CB / FCC
- 1 year warranty

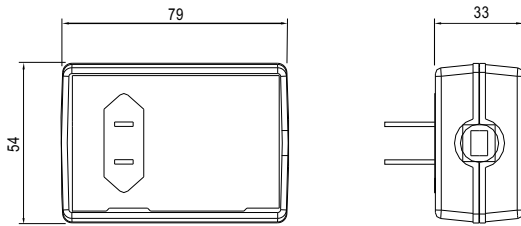
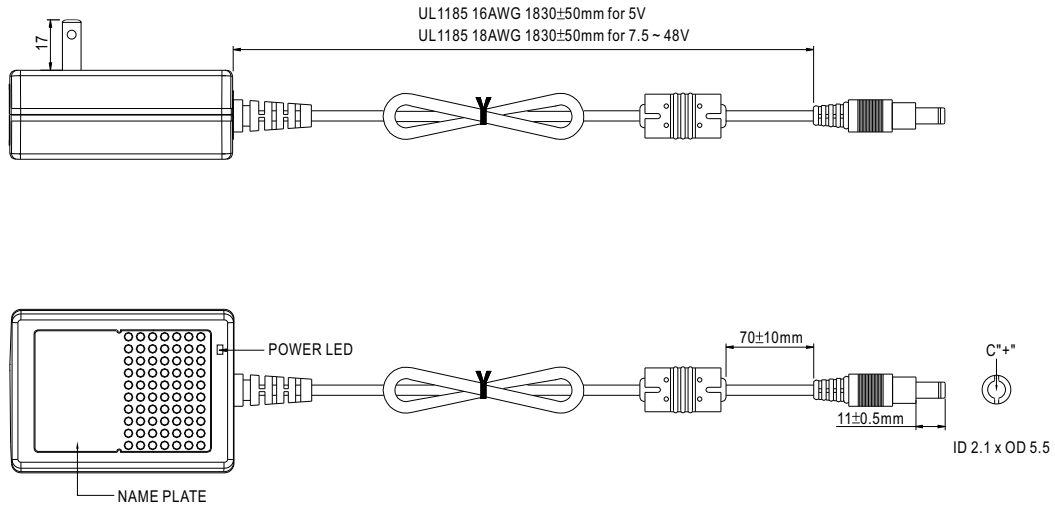


**SPECIFICATION**

| ORDER NO.                               | ES25U05-P1J   | ES25U07-P1J | ES25U09-P1J  | ES25U12-P1J                   | ES25U15-P1J | ES25U18-P1J | ES25U24-P1J | ES25U28-P1J | ES25U36-P1J  | ES25U48-P1J  |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
|---|---|-------------|--------------|-------------------------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------------------|---|-------------|--------------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|---|------|----|-----|-----|-----|-----|-----|-----|-----|--------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|------------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|--|---------|---------|---------|----------|----------|----------|----------|----------|----------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------------|--------------------------------|--|--|--|--|--|--|--|--|--|
| <b>OUTPUT</b>                           | <table border="1"> <tr> <td><b>SAFETY MODEL NO.</b></td> <td>ES25U05-050</td> <td>ES25U07-075</td> <td>ES25U09-090</td> <td>ES25U12-120</td> <td>ES25U15-150</td> <td>ES25U18-180</td> <td>ES25U24-240</td> <td>ES25U30-280</td> <td>ES25U36-360</td> <td>ES25U48-480</td> </tr> <tr> <td><b>DC VOLTAGE</b> Note.2</td> <td>5V</td> <td>7.5V</td> <td>9V</td> <td>12V</td> <td>15V</td> <td>18V</td> <td>24V</td> <td>28V</td> <td>36V</td> <td>48V</td> </tr> <tr> <td><b>RATED CURRENT</b></td> <td>4.0A</td> <td>2.93A</td> <td>2.77A</td> <td>2.08A</td> <td>1.66A</td> <td>1.38A</td> <td>1.04A</td> <td>0.89A</td> <td>0.69A</td> <td>0.52A</td> </tr> <tr> <td><b>CURRENT RANGE</b></td> <td>0.4 ~ 4.0A</td> <td>0.3 ~ 2.93A</td> <td>0.2 ~ 2.77A</td> <td>0.1 ~ 2.08A</td> <td>0.1 ~ 1.66A</td> <td>0.1 ~ 1.38A</td> <td>0.1 ~ 1.04A</td> <td>0.1 ~ 0.89A</td> <td>0.06 ~ 0.69A</td> <td>0.05 ~ 0.52A</td> </tr> <tr> <td><b>RATED POWER (max.)</b></td> <td>20W</td> <td>22W</td> <td>25W</td> <td>25W</td> <td>25W</td> <td>25W</td> <td>25W</td> <td>25W</td> <td>25W</td> <td>25W</td> </tr> <tr> <td><b>RIPPLE &amp; NOISE (max.)</b> Note.3</td> <td>50mVp-p</td> <td>80mVp-p</td> <td>80mVp-p</td> <td>80mVp-p</td> <td>100mVp-p</td> <td>150mVp-p</td> <td>180mVp-p</td> <td>240mVp-p</td> <td>240mVp-p</td> <td>240mVp-p</td> </tr> <tr> <td><b>VOLTAGE TOLERANCE</b> Note.4</td> <td>±5.0%</td> <td>±5.0%</td> <td>±5.0%</td> <td>±3.0%</td> <td>±3.0%</td> <td>±3.0%</td> <td>±2.0%</td> <td>±2.0%</td> <td>±2.0%</td> <td>±2.0%</td> </tr> <tr> <td><b>LINE REGULATION</b> Note.5</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> <td>±1.0%</td> </tr> <tr> <td><b>LOAD REGULATION</b> Note.6</td> <td>±5.0%</td> <td>±5.0%</td> <td>±5.0%</td> <td>±3.0%</td> <td>±3.0%</td> <td>±3.0%</td> <td>±2.0%</td> <td>±2.0%</td> <td>±2.0%</td> <td>±2.0%</td> </tr> <tr> <td><b>SETUP, RISE, HOLD UP TIME</b></td> <td colspan="10">600ms, 50ms, 16ms at full load</td> </tr> </table> |             |              |                               |             |             |             |             |              |              | <b>SAFETY MODEL NO.</b> | ES25U05-050   | ES25U07-075 | ES25U09-090  | ES25U12-120                   | ES25U15-150 | ES25U18-180 | ES25U24-240 | ES25U30-280 | ES25U36-360 | ES25U48-480 | <b>DC VOLTAGE</b> Note.2 | 5V  | 7.5V | 9V | 12V | 15V | 18V | 24V | 28V | 36V | 48V | <b>RATED CURRENT</b>           | 4.0A                                       | 2.93A | 2.77A | 2.08A | 1.66A | 1.38A | 1.04A | 0.89A | 0.69A | 0.52A | <b>CURRENT RANGE</b>                  | 0.4 ~ 4.0A   | 0.3 ~ 2.93A | 0.2 ~ 2.77A | 0.1 ~ 2.08A | 0.1 ~ 1.66A | 0.1 ~ 1.38A | 0.1 ~ 1.04A | 0.1 ~ 0.89A | 0.06 ~ 0.69A | 0.05 ~ 0.52A | <b>RATED POWER (max.)</b>    | 20W   | 22W | 25W | 25W | 25W | 25W | 25W | 25W | 25W | 25W | <b>RIPPLE &amp; NOISE (max.)</b> Note.3 | 50mVp-p  | 80mVp-p | 80mVp-p | 80mVp-p | 100mVp-p | 150mVp-p | 180mVp-p | 240mVp-p | 240mVp-p | 240mVp-p | <b>VOLTAGE TOLERANCE</b> Note.4 | ±5.0% | ±5.0% | ±5.0% | ±3.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | <b>LINE REGULATION</b> Note.5 | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | <b>LOAD REGULATION</b> Note.6 | ±5.0% | ±5.0% | ±5.0% | ±3.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | <b>SETUP, RISE, HOLD UP TIME</b> | 600ms, 50ms, 16ms at full load |  |  |  |  |  |  |  |  |  |
| <b>SAFETY MODEL NO.</b>                 | ES25U05-050   | ES25U07-075 | ES25U09-090  | ES25U12-120                   | ES25U15-150 | ES25U18-180 | ES25U24-240 | ES25U30-280 | ES25U36-360  | ES25U48-480  |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>DC VOLTAGE</b> Note.2                | 5V  | 7.5V        | 9V           | 12V                           | 15V         | 18V         | 24V         | 28V         | 36V          | 48V          |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>RATED CURRENT</b>                    | 4.0A  | 2.93A       | 2.77A        | 2.08A                         | 1.66A       | 1.38A       | 1.04A       | 0.89A       | 0.69A        | 0.52A        |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>CURRENT RANGE</b>                    | 0.4 ~ 4.0A  | 0.3 ~ 2.93A | 0.2 ~ 2.77A  | 0.1 ~ 2.08A                   | 0.1 ~ 1.66A | 0.1 ~ 1.38A | 0.1 ~ 1.04A | 0.1 ~ 0.89A | 0.06 ~ 0.69A | 0.05 ~ 0.52A |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>RATED POWER (max.)</b>               | 20W   | 22W         | 25W          | 25W                           | 25W         | 25W         | 25W         | 25W         | 25W          | 25W          |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>RIPPLE &amp; NOISE (max.)</b> Note.3 | 50mVp-p   | 80mVp-p     | 80mVp-p      | 80mVp-p                       | 100mVp-p    | 150mVp-p    | 180mVp-p    | 240mVp-p    | 240mVp-p     | 240mVp-p     |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>VOLTAGE TOLERANCE</b> Note.4         | ±5.0%   | ±5.0%       | ±5.0%        | ±3.0%                         | ±3.0%       | ±3.0%       | ±2.0%       | ±2.0%       | ±2.0%        | ±2.0%        |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>LINE REGULATION</b> Note.5           | ±1.0%   | ±1.0%       | ±1.0%        | ±1.0%                         | ±1.0%       | ±1.0%       | ±1.0%       | ±1.0%       | ±1.0%        | ±1.0%        |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>LOAD REGULATION</b> Note.6           | ±5.0%   | ±5.0%       | ±5.0%        | ±3.0%                         | ±3.0%       | ±3.0%       | ±2.0%       | ±2.0%       | ±2.0%        | ±2.0%        |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>SETUP, RISE, HOLD UP TIME</b>        | 600ms, 50ms, 16ms at full load  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>INPUT</b>                            | <table border="1"> <tr> <td><b>VOLTAGE RANGE</b></td> <td colspan="2">90 ~ 264VAC</td> <td colspan="8">135 ~ 370VDC</td> </tr> <tr> <td><b>FREQUENCY RANGE</b></td> <td colspan="10">47 ~ 63Hz</td> </tr> <tr> <td><b>EFFICIENCY (Typ.)</b></td> <td>70%</td> <td>72%</td> <td>76%</td> <td>76%</td> <td>78%</td> <td>80%</td> <td>82%</td> <td>82%</td> <td>82%</td> <td>82%</td> </tr> <tr> <td><b>AC CURRENT</b></td> <td colspan="10">0.7A / 100VAC</td> </tr> <tr> <td><b>INRUSH CURRENT (max.)</b></td> <td colspan="10">30A / 230VAC</td> </tr> <tr> <td><b>LEAKAGE CURRENT(max.)</b></td> <td colspan="10">0.25mA / 240VAC</td> </tr> </table>  |             |              |                               |             |             |             |             |              |              | <b>VOLTAGE RANGE</b>    | 90 ~ 264VAC   |             | 135 ~ 370VDC |                               |             |             |             |             |             |             | <b>FREQUENCY RANGE</b>   | 47 ~ 63Hz   |      |    |     |     |     |     |     |     |     | <b>EFFICIENCY (Typ.)</b>       | 70%  | 72%   | 76%   | 76%   | 78%   | 80%   | 82%   | 82%   | 82%   | 82%   | <b>AC CURRENT</b>                     | 0.7A / 100VAC  |             |             |             |             |             |             |             |              |              | <b>INRUSH CURRENT (max.)</b> | 30A / 230VAC  |     |     |     |     |     |     |     |     |     | <b>LEAKAGE CURRENT(max.)</b>            | 0.25mA / 240VAC  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>VOLTAGE RANGE</b>                    | 90 ~ 264VAC   |             | 135 ~ 370VDC |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>FREQUENCY RANGE</b>                  | 47 ~ 63Hz   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>EFFICIENCY (Typ.)</b>                | 70%   | 72%         | 76%          | 76%                           | 78%         | 80%         | 82%         | 82%         | 82%          | 82%          |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>AC CURRENT</b>                       | 0.7A / 100VAC   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>INRUSH CURRENT (max.)</b>            | 30A / 230VAC  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>LEAKAGE CURRENT(max.)</b>            | 0.25mA / 240VAC   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>PROTECTION</b>                       | <table border="1"> <tr> <td><b>OVERLOAD</b></td> <td colspan="3">110 ~ 150% rated output power</td> <td colspan="7">130 ~ 180% rated output power</td> </tr> <tr> <td></td> <td colspan="10">Protection type : Hiccup mode, recovers automatically after fault condition is removed</td> </tr> <tr> <td><b>OVER VOLTAGE</b></td> <td colspan="10">105 ~ 135% rated output voltage</td> </tr> <tr> <td></td> <td colspan="10">Protection type : Shut down o/p voltage, re-power on to recover</td> </tr> </table>  |             |              |                               |             |             |             |             |              |              | <b>OVERLOAD</b>         | 110 ~ 150% rated output power   |             |              | 130 ~ 180% rated output power |             |             |             |             |             |             |                          | Protection type : Hiccup mode, recovers automatically after fault condition is removed              |      |    |     |     |     |     |     |     |     | <b>OVER VOLTAGE</b>            | 105 ~ 135% rated output voltage            |       |       |       |       |       |       |       |       |       |                                       | Protection type : Shut down o/p voltage, re-power on to recover                |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>OVERLOAD</b>                         | 110 ~ 150% rated output power   |             |              | 130 ~ 180% rated output power |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
|   | Protection type : Hiccup mode, recovers automatically after fault condition is removed  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>OVER VOLTAGE</b>                     | 105 ~ 135% rated output voltage   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
|   | Protection type : Shut down o/p voltage, re-power on to recover   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>ENVIRONMENT</b>                      | <table border="1"> <tr> <td><b>WORKING TEMP.</b></td> <td colspan="10">0 ~ +50°C (Refer to output load derating curve)</td> </tr> <tr> <td><b>WORKING HUMIDITY</b></td> <td colspan="10">20% ~ 90% RH non-condensing</td> </tr> <tr> <td><b>STORAGE TEMP., HUMIDITY</b></td> <td colspan="10">-20 ~ +85°C, 10 ~ 95% RH</td> </tr> <tr> <td><b>TEMP. COEFFICIENT</b></td> <td colspan="10">±0.03% / °C (0 ~ 50°C)</td> </tr> <tr> <td><b>VIBRATION</b></td> <td colspan="10">10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes</td> </tr> </table>   |             |              |                               |             |             |             |             |              |              | <b>WORKING TEMP.</b>    | 0 ~ +50°C (Refer to output load derating curve)   |             |              |                               |             |             |             |             |             |             | <b>WORKING HUMIDITY</b>  | 20% ~ 90% RH non-condensing   |      |    |     |     |     |     |     |     |     | <b>STORAGE TEMP., HUMIDITY</b> | -20 ~ +85°C, 10 ~ 95% RH                   |       |       |       |       |       |       |       |       |       | <b>TEMP. COEFFICIENT</b>              | ±0.03% / °C (0 ~ 50°C)   |             |             |             |             |             |             |             |              |              | <b>VIBRATION</b>             | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>WORKING TEMP.</b>                    | 0 ~ +50°C (Refer to output load derating curve)   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>WORKING HUMIDITY</b>                 | 20% ~ 90% RH non-condensing   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>STORAGE TEMP., HUMIDITY</b>          | -20 ~ +85°C, 10 ~ 95% RH  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>TEMP. COEFFICIENT</b>                | ±0.03% / °C (0 ~ 50°C)  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>VIBRATION</b>                        | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>SAFETY &amp; EMC (Note. 7)</b>       | <table border="1"> <tr> <td><b>SAFETY STANDARDS</b></td> <td colspan="10">UL60950-1, CSA C22.2, BSMI, CNS14336 approved</td> </tr> <tr> <td><b>WITHSTAND VOLTAGE</b></td> <td colspan="10">I/P-O/P:3KVAC</td> </tr> <tr> <td><b>ISOLATION RESISTANCE</b></td> <td colspan="10">I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH</td> </tr> <tr> <td><b>EMI CONDUCTION &amp; RADIATION</b></td> <td colspan="10">Compliance to EN55022 class B, CNS13438 class B, FCC PART 15 / CISPR22 class B</td> </tr> <tr> <td><b>HARMONIC CURRENT</b></td> <td colspan="10">Compliance to EN61000-3-2,3</td> </tr> <tr> <td><b>EMS IMMUNITY</b></td> <td colspan="10">Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A</td> </tr> </table>   |             |              |                               |             |             |             |             |              |              | <b>SAFETY STANDARDS</b> | UL60950-1, CSA C22.2, BSMI, CNS14336 approved   |             |              |                               |             |             |             |             |             |             | <b>WITHSTAND VOLTAGE</b> | I/P-O/P:3KVAC   |      |    |     |     |     |     |     |     |     | <b>ISOLATION RESISTANCE</b>    | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH |       |       |       |       |       |       |       |       |       | <b>EMI CONDUCTION &amp; RADIATION</b> | Compliance to EN55022 class B, CNS13438 class B, FCC PART 15 / CISPR22 class B |             |             |             |             |             |             |             |              |              | <b>HARMONIC CURRENT</b>      | Compliance to EN61000-3-2,3   |     |     |     |     |     |     |     |     |     | <b>EMS IMMUNITY</b>                     | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>SAFETY STANDARDS</b>                 | UL60950-1, CSA C22.2, BSMI, CNS14336 approved   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>WITHSTAND VOLTAGE</b>                | I/P-O/P:3KVAC   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>ISOLATION RESISTANCE</b>             | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>EMI CONDUCTION &amp; RADIATION</b>   | Compliance to EN55022 class B, CNS13438 class B, FCC PART 15 / CISPR22 class B  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>HARMONIC CURRENT</b>                 | Compliance to EN61000-3-2,3   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>EMS IMMUNITY</b>                     | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>OTHERS</b>                           | <table border="1"> <tr> <td><b>MTBF</b></td> <td colspan="10">500Khrs min. MIL-HDBK-217F(25°C)</td> </tr> <tr> <td><b>DIMENSION</b></td> <td colspan="10">79*54*33mm (L*W*H)</td> </tr> <tr> <td><b>PACKING</b></td> <td colspan="10">220g ; 60pcs / 13.5kg / CARTON</td> </tr> </table>  |             |              |                               |             |             |             |             |              |              | <b>MTBF</b>             | 500Khrs min. MIL-HDBK-217F(25°C)  |             |              |                               |             |             |             |             |             |             | <b>DIMENSION</b>         | 79*54*33mm (L*W*H)  |      |    |     |     |     |     |     |     |     | <b>PACKING</b>                 | 220g ; 60pcs / 13.5kg / CARTON             |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>MTBF</b>                             | 500Khrs min. MIL-HDBK-217F(25°C)  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>DIMENSION</b>                        | 79*54*33mm (L*W*H)  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>PACKING</b>                          | 220g ; 60pcs / 13.5kg / CARTON  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>CONNECTOR</b>                        | <table border="1"> <tr> <td><b>PLUG</b></td> <td colspan="10">Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested</td> </tr> <tr> <td><b>CABLE</b></td> <td colspan="10">Standard type UL1185 6ft (with ferrite core) for stock ; Other type available by customer requested</td> </tr> </table>  |             |              |                               |             |             |             |             |              |              | <b>PLUG</b>             | Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested |             |              |                               |             |             |             |             |             |             | <b>CABLE</b>             | Standard type UL1185 6ft (with ferrite core) for stock ; Other type available by customer requested |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>PLUG</b>                             | Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>CABLE</b>                            | Standard type UL1185 6ft (with ferrite core) for stock ; Other type available by customer requested   |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |
| <b>NOTE</b>                             | <ol style="list-style-type: none"> <li>1.All parameters are specified at 115VAC input, rated load, 25°C 70% RH ambient.</li> <li>2.DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>3.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</li> <li>4.Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>5.Line regulation is measured from low line to high line at rated load.</li> <li>6.Load regulation is measured from 20% to 100% rated load</li> <li>7.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.</li> </ol>  |             |              |                               |             |             |             |             |              |              |                         |   |             |              |                               |             |             |             |             |             |             |                          |   |      |    |     |     |     |     |     |     |     |                                |  |       |       |       |       |       |       |       |       |       |                                       |  |             |             |             |             |             |             |             |              |              |                              |   |     |     |     |     |     |     |     |     |     |   |  |         |         |         |          |          |          |          |          |          |                                 |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                               |       |       |       |       |       |       |       |       |       |       |                                  |                                |  |  |  |  |  |  |  |  |  |

### Mechanical Specification

Unit:mm

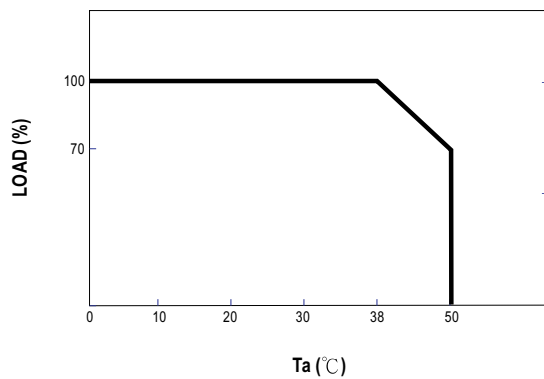


### Plug Assignment

Standard plug: P1J (option)

| P1J    |        |
|--------|--------|
| P/N    | OUTPUT |
| CENTER | +      |

### Derating Curve



### Static Characteristics

