

Temperature increase of main components

Model: MGFW1548□□

1. Conditions

- (1) Input :DC 48 [V]
- (2) Output :Rated output
- (3) Cooling method :Convection cooling
- (4) Mounting method :Shown as Fig.1.1

2. Result

Table 2.1 Temperature increase of main components

| No. | Parts name              | Symbol No. | Increase ( $\Delta T$ ) |      |      | Rated temp. [°C] | Reference      |
|-----|-------------------------|------------|-------------------------|------|------|------------------|----------------|
|     |                         |            | [deg]                   |      |      |                  |                |
|     |                         |            | ±5V                     | ±12V | ±15V |                  |                |
| 1   | Transformer             | T101       | 71                      | 59   | 51   | 155              |                |
| 2   | Switching MOS-FET       | TR101      | 68                      | 57   | 52   | 150              | Junction Temp. |
| 3   | Rectified Diode(Output) | D201       | 65                      | 54   | 47   | 150              | Junction Temp. |
| 4   | Output Choke Coil       | L201       | 62                      | 52   | 44   | 130              |                |
| 5   | Bipolar Transistor      | TR113      | 61                      | 54   | 47   | 150              | Junction Temp. |
| 6   | Case                    | -          | 52                      | 48   | 40   | -                |                |
| 7   |                         |            |                         |      |      |                  |                |
| 8   |                         |            |                         |      |      |                  |                |
| 9   |                         |            |                         |      |      |                  |                |
| 10  |                         |            |                         |      |      |                  |                |
| 11  |                         |            |                         |      |      |                  |                |
| 12  |                         |            |                         |      |      |                  |                |
| 13  |                         |            |                         |      |      |                  |                |
| 14  |                         |            |                         |      |      |                  |                |
| 15  |                         |            |                         |      |      |                  |                |
| 16  |                         |            |                         |      |      |                  |                |
| 17  |                         |            |                         |      |      |                  |                |
| 18  |                         |            |                         |      |      |                  |                |
| 19  |                         |            |                         |      |      |                  |                |
| 20  |                         |            |                         |      |      |                  |                |



(Side view)

Fig.1.1 Mounting method  
(Normal position)