

Mar.13,2025

Temperature increase of main components: 主要部品温度上昇

Model: MU□1R505□□ / MU□305□□

1. Conditions

- (1) Input :DC 4.5 ~ 9 [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(Δ T) [deg] | | | | | | | | Rated temp. [°C] | Reference |
|-----|-------------------------|------------|------------------------|------|----|-----|-----|------|------|-----|---------------------|-----------|
| | | | MUS1R5 | MUS3 | | | | MUW3 | | | | |
| | | | 5V | 3.3V | 5V | 12V | 15V | ±12V | ±15V | | | |
| 1 | Switching MOS-FET | TR11 | 17 | 27 | 31 | 29 | 29 | 30 | 30 | 150 | Junction Temp. | |
| 2 | Input Choke Coil | L11 | 15 | 20 | 25 | 22 | 22 | 24 | 24 | 125 | | |
| 3 | Output Choke Coil | L51 | 15 | 24 | 25 | 22 | 19 | 23 | 20 | 125 | | |
| 4 | Rectified diode(Output) | D51 | 21 | 33 | 34 | 27 | 26 | 30 | 27 | 150 | Junction Temp. | |
| 5 | Transformer | T11 | 19 | 29 | 33 | 31 | 30 | 35 | 32 | 155 | | |
| 6 | Optocoupler | PC31 | 17 | 25 | 28 | 25 | 25 | 28 | 22 | 135 | Junction Temp. | |
| 7 | Case | CASE | 16 | 24 | 28 | 25 | 26 | 28 | 26 | 130 | Top Surface Center | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |

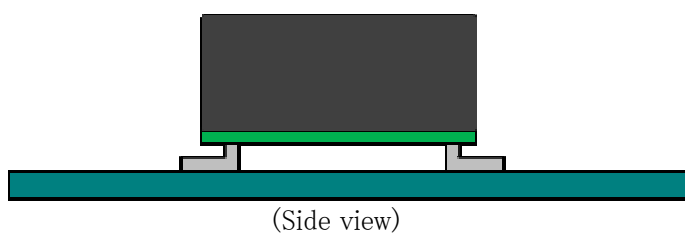


Fig.1.1 Mounting method
(Normal position)