

Temperature increase of main components

Model: SUS/SUW312

1. Conditions

- (1) Input :DC 9 - 18 [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 (ΔT) | | | | | | Rated temp. [°C] | Reference |
|-----|-------------------------|------------|-------------------------|----|-----|-----|------|------|------------------|----------------|
| | | | [deg] | | | | | | | |
| | | | 3.3V | 5V | 12V | 15V | ±12V | ±15V | | |
| 1 | Transformer | T11 | 34 | 45 | 45 | 49 | 49 | 50 | 155 | |
| 2 | Switching Transistor | TR11 | 26 | 33 | 36 | 38 | 36 | 39 | 150 | Junction temp. |
| 3 | Rectified Diode(Output) | D51 | 38 | 41 | 46 | 45 | - | - | 150 | Junction temp. |
| 4 | Rectified Diode(Output) | D52 | - | - | - | - | 43 | 35 | 150 | Junction temp. |
| 5 | Input Choke | L11 | 20 | 25 | 29 | 34 | 29 | 31 | 130 | |
| 6 | Output Choke | L51 | 22 | 24 | 26 | 26 | - | - | 130 | |
| 7 | Output Choke | L52 | - | - | - | - | 33 | 30 | 125 | |
| 8 | Photocoupler | PC11 | 29 | 33 | 38 | 40 | 36 | 40 | 125 | Junction temp. |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| 16 | | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |



(Side view)

Fig.1.1 Mounting method
(Normal position)