

## 【Annex】

## Thermal Resistance Values of the Nichia 123G Series LEDs



Part Number	Thermal Resistance $R_{\theta JMP}$ (°C/W)
NFSW123G	31.6
NFSA123G	36.7
NJSW123G	20.8
NJSA123G	27.8

- The  $R_{\theta JMP}$  is the thermal resistance from the chip of the LED to the measurement point Nichia specifies (i.e. the  $T_{MP}$  measurement point).  
(PCB used for the  $R_{\theta JMP}$  measurement: FR-4 with a thickness of 1.6mm, Copper layer thickness: 0.07mm)
- The estimated value of the junction temperature ( $T_J$ ) of the LED can be calculated by measuring the  $T_{MP}$  (i.e. the temperature of the  $T_{MP}$  measurement point) of the LED mounted on a PCB and using the  $R_{\theta JMP}$  value provided above. For details of how to calculate the  $T_J$ , refer to the application note: How to Calculate the Junction Temperature for the Nichia 123G Series LEDs.
- $R_{\theta JMP}$  values are values measured under Nichia's measurement conditions. The  $R_{\theta JMP}$  values provided above are the maximum values calculated from the measurement results; these values should be used for reference purposes only.
- For the LEDs that do not have the  $R_{\theta JMP}$  values provided above, contact a local Nichia sales representative.

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