

【Annex】

Thermal Resistance Values of the Nichia 123G Series LEDs



Part Number	Thermal Resistance $R_{\theta JMP}$ (°C/W)
NFSA123G	36.7
NFSA123G-FTA	40.1
NFSE123G	47.0
NFSE123G-Y4	46.3
NFSW123G	31.6
NFSW123G-NB	35.5
NFSY123G	35.5
NJSA123G	27.8
NJSW123G	20.8
NJSW123G-FTW	20.8
NJSW123G-NB	25.5
NJSY123G	25.5

- 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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