

【Annex】

Thermal Resistance Values of the Nichia 321 Series LEDs



Part Number	Thermal Resistance $R_{\theta JMP}$ (°C/W)	Part Number	Thermal Resistance $R_{\theta JMP}$ (°C/W)
NC2W321A	3.9	NC3W321A	2.7
NC4W321A	2.5	NC2W321B	3.9
NC3W321B	2.7	NC4W321B	2.5
NCSW321F	3.6	NC2W321F	2.7
NC3W321F	2.2	NC4W321F	2.0
NC5W321F	1.8	NC2W321G	2.7
NC3W321G	2.2	NC4W321G	2.0
NC5W321G	1.8	NC2A321G	3.3
NC3A321G	2.7	NC4A321G	2.2

- 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: Aluminum-core PCB with a thickness of 1.5mm, Copper layer thickness: 105 μ m)
- 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 321 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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NICHIA CORPORATION

<http://www.nichia.co.jp>

491 Oka, Kaminaka-Cho, Anan-Shi,
TOKUSHIMA 774-8601, JAPAN

Phone: +81-884-22-2311 Fax: +81-884-21-0148