Light Emitting Diode

【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		

- 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: 105μm)

- 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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