LNJ03004BLD3

Surface Mounting Chip LED

3230 Type

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Power dissipation	P_D	430	mW
Forward current *1	I_F	120	mA
Pulse forward current *2	I_{FP}	200	mA
Junction temperature	T_j	110	°C
Operating ambient temperature	T_{opr}	–30 to +85	°C
Storage temperature	T_{stg}	–40 to +100	°C

Note) *1: I_F is different by radiated factor of evaluation board.
This value is mounted on evaluation board at Rthj-a = 35.0 °C/W.
*2: The condition of pulse current I_{FP} is 55 ms pulse width, 10 % duty.

■ Lighting Color

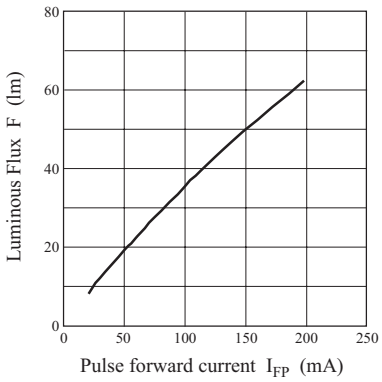
- White (2700 [Kelvin])

■ Electro-Optical Characteristics T_a = 25°C±3°C

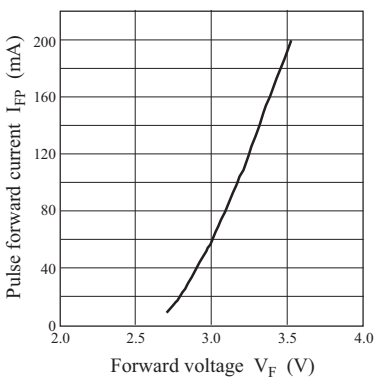
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage *1	V_F	I_{FP} = 60 mA	2.6	3.0	3.4	V
Luminous flux *2	F	I_{FP} = 60 mA	18.0	22.6	36.0	lm
Chromaticity coordinates *3	x	I_{FP} = 60 mA		0.459		—
	y	I_{FP} = 60 mA		0.412		—
Color Rendering Index	Ra	I_{FP} = 60 mA		82		—

Note) *1: Complete Forward Voltage measurement within 0.1 seconds. Tolerance ±3%
*2: Complete Luminous flux measurement within 0.1 seconds. Tolerance ±10%
*3: Complete Chromaticity coordinates measurement within 0.1 seconds. Tolerance of chromaticity is ±0.01

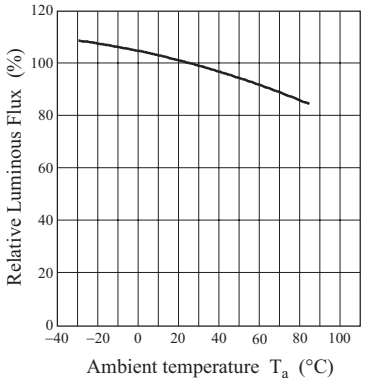
F — I_{FP}



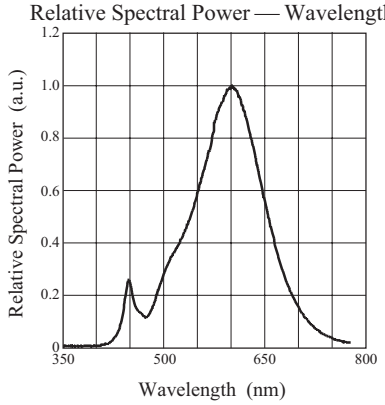
I_{FP} — V_F



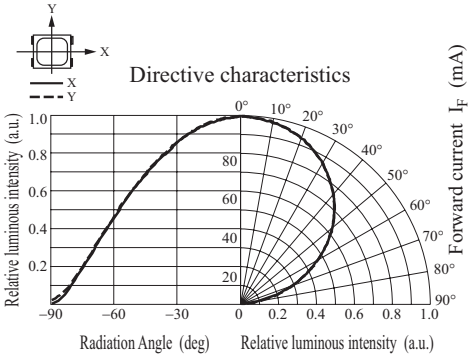
Relative Luminous Flux — T_a



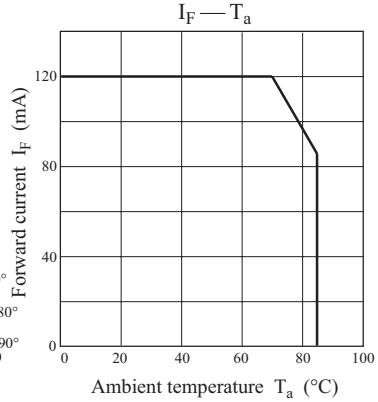
Relative Spectral Power — Wavelength



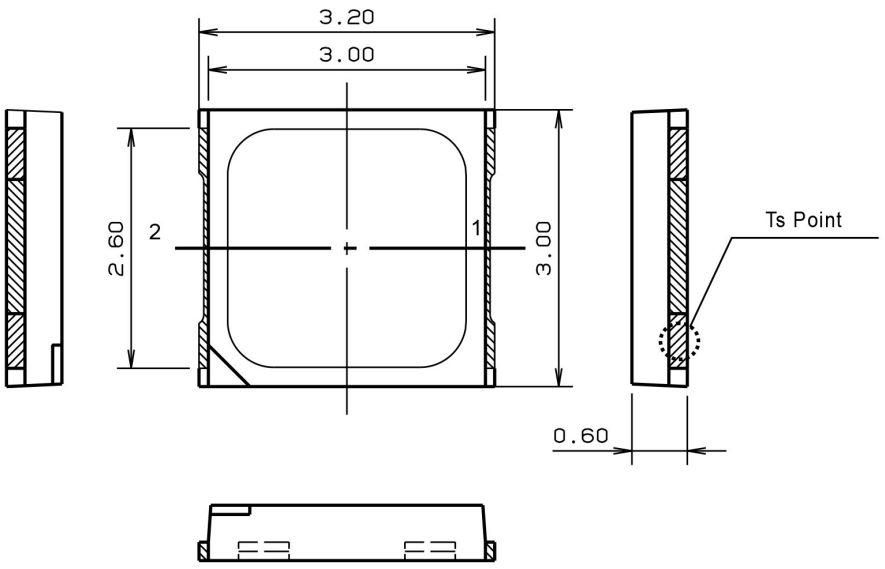
Directive characteristics

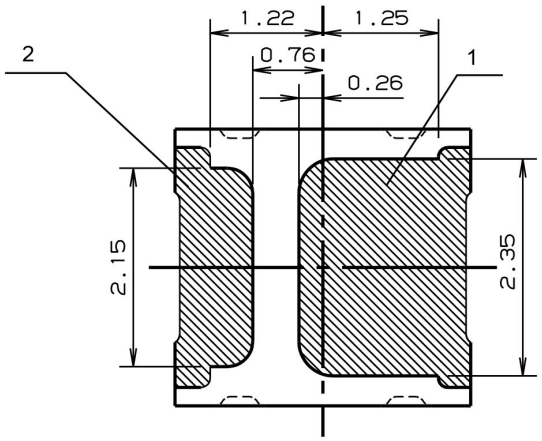


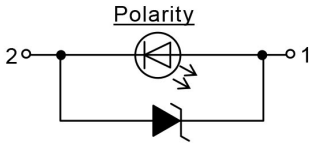
I_F — T_a



■ Package (Unit: mm)



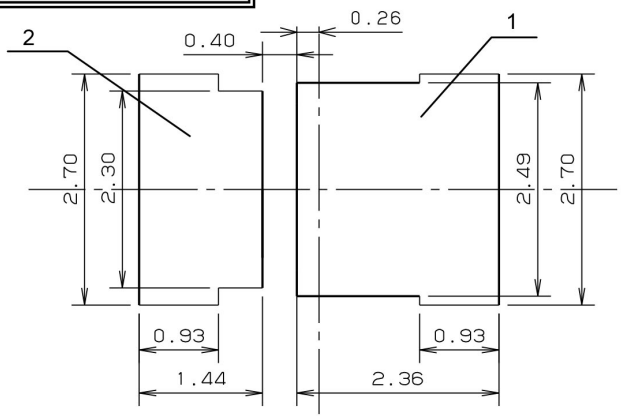




1. Anode
2. Cathode

Item	Contents
Terminal Process	Cu + Ag Plate
Mold Material	Silicone Resin
Package Material	Polymer Base Reflection case

Reference Land Layout



(Note1) Tolerance unless otherwise specified : ±0.2mm

Request for your special attention and precautions in using the technical information and semiconductors described in this book

(1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.

(2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.

(3) The products described in this book are intended to be used for general applications (such as office equipment, communications equipment, measuring instruments and household appliances), or for specific applications as expressly stated in this book.
Consult our sales staff in advance for information on the following applications:
- Special applications (such as for airplanes, aerospace, automotive equipment, traffic signaling equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.

It is to be understood that our company shall not be held responsible for any damage incurred as a result of or in connection with your using the products described in this book for any special application, unless our company agrees to your using the products in this book for any special application.

(4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.

(5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.

(7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of our company.

20100202