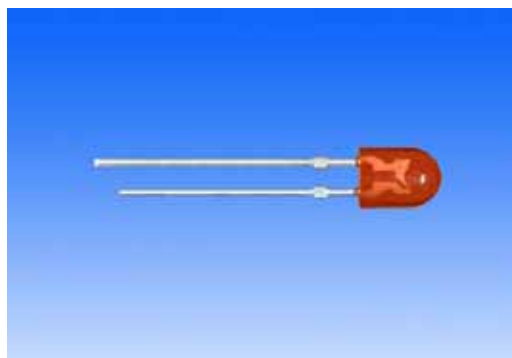


High Luminous Intensity Red LED

TYPE : **NSPR546GS**



Features

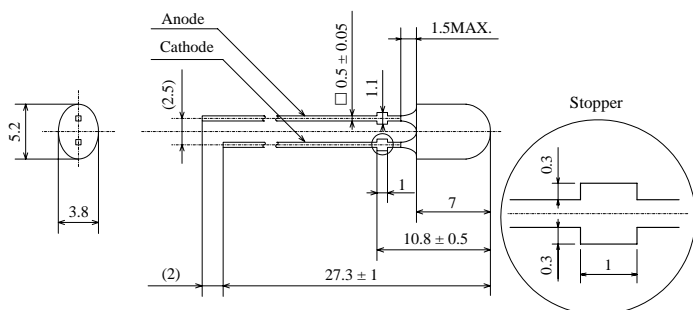
- Superior Weather-resistant Epoxy
- UV Resistance
- Lens Color : Red (Diffusion Type)
- Pb-free Soldering Application

Applications

- Displays etc.

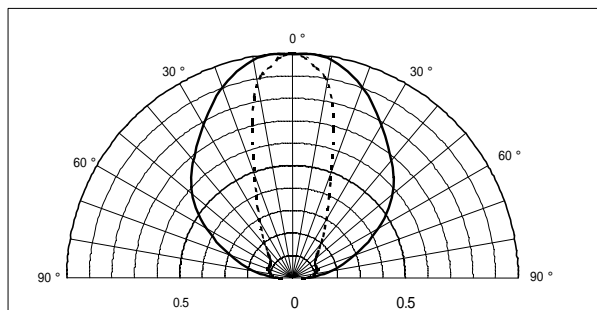
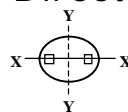
Outline Dimension

Tolerance : ± 0.2
Unit : mm



Directivity

$T_a = 25^\circ\text{C}$
 $I_F = 20\text{mA}$



Absolute Maximum Rating ($T_a = 25^\circ\text{C}$)

Item	Symbol (Unit)	Absolute Maximum Rating
Forward Current	$I_F(\text{mA})$	50
Pulse Forward Current ^{*1}	$I_{FP}(\text{mA})$	200
Reverse Voltage	$V_R(\text{V})$	5
Power Dissipation	$P_D(\text{mW})$	130
Operating Temperature	$T_{opr}(^\circ\text{C})$	$-30 \sim +85$
Storage Temperature	$T_{stg}(^\circ\text{C})$	$-40 \sim +100$

* 1 Pulse Width Max.10ms Duty ratio Max 1/10.

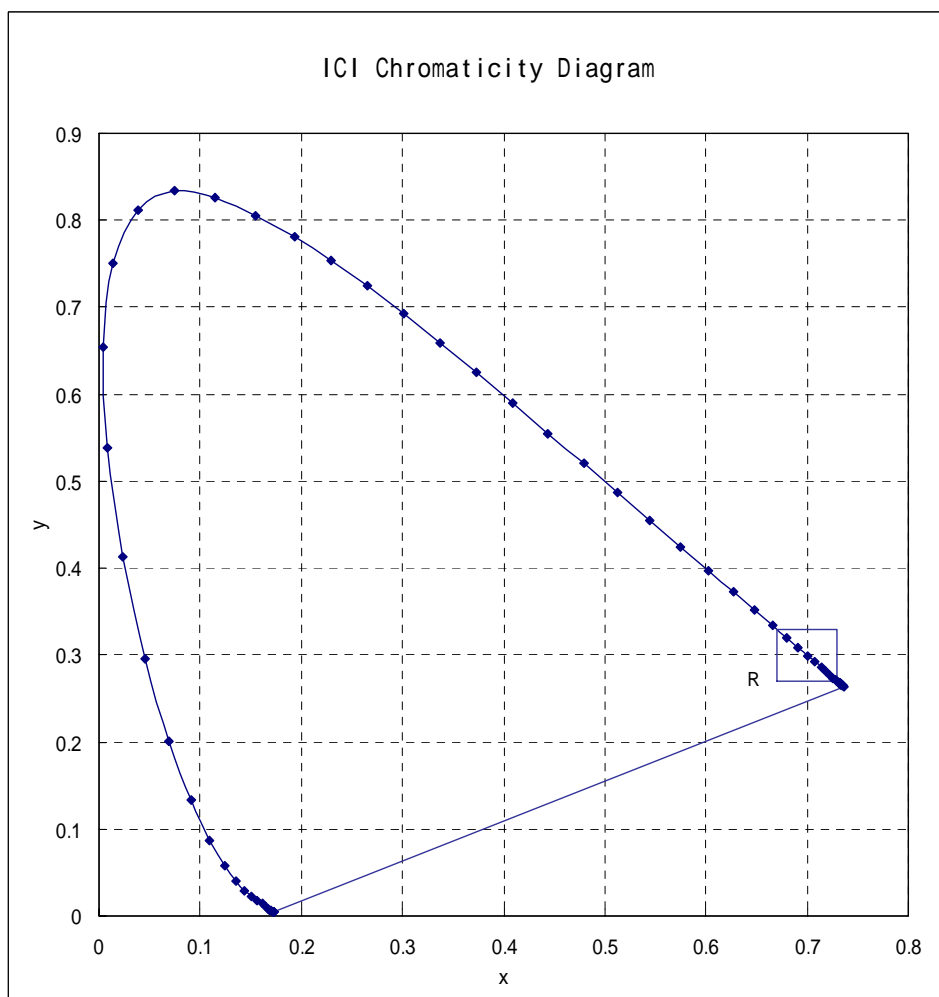
Electrical Optical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Condition	Symbol (Unit)	Typ.	Max.
Forward Voltage	$I_F = 20\text{mA}$	$V_F(\text{V})$	2.2	2.6
Reverse Current	$V_R = 5\text{V}$	$I_R(\mu\text{A})$	-	50
Luminous Intensity	$I_F = 20\text{mA}$	$I_v(\text{cd})$	(0.88)	-
Chromaticity Coordinate ^{*1}	$I_F = 20\text{mA}$	x	0.7	-
Chromaticity Coordinate ^{*1}	$I_F = 20\text{mA}$	y	0.3	-

* 1 Refer to CIE1931 Chromaticity Diagram.

TYPE : NSPR546GS High Luminous Intensity Red LED

■ Color Ranks*1



(If=20mA, Ta= 25°C)

	Rank R			
x	0.67	0.67	0.73	0.73
y	0.27	0.33	0.33	0.27

* 1 Color Coordinates Measurement allowance is ± 0.01 .

■ Luminous Intensity*2

(Ta= 25°C)

	Condition	Symbol (Unit)	Min.	Typ.	Max.
Rank U	If=20mA	Iv(cd)	1.02	1.22	1.44
Rank T	If=20mA	Iv(cd)	0.72	0.88	1.02
Rank S	If=20mA	Iv(cd)	0.51	0.61	0.72

* 2 Luminous Intensity Measurement Allowance is $\pm 10\%$.

TYPE : NSPR546GS High Luminous Intensity Red LED

■ Cautions

- ☐ No unauthorized transmission or reproduction of this document, either in whole or in part, is permitted.
- ☐ If you have any questions regarding this document, please contact your local Nichia office.
- ☐ The LEDs described in this document are intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Please contact your local Nichia office before using these products where exceptional quality and reliability are required, particularly when the failure or malfunction of the LEDs may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
- ☐ User shall not reverse engineer by disassembling or analyzing the LEDs without having prior written consent from Nichia. When defective LEDs are found, the User shall inform Nichia directly before disassembling or analysis.
- ☐ The LED light output is strong enough to injure human eyes.
Precautions must be taken to prevent looking directly at the LEDs with unaided eyes for more than a few seconds.
- The appearance and specifications of the products may be modified for improvement without notice.
Make sure to ask for and obtain the Specifications and confirm the contents before using the product(s).
- The formal Specifications must be exchanged and signed by both parties before large volume purchase begins.
Nichia will not take responsibility for any trouble that is caused by using the LEDs at conditions exceeding our specifications.

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