

# LNJ167W87RA

## Surface Mounting Chip LED

### ESS Type

#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

- Pure Green

Parameter	Symbol	Rating	Unit
Power dissipation	$P_D$	75	mW
Forward current	$I_F$	20	mA
Pulse forward current *	$I_{FP}$	70	mA
Reverse voltage	$V_R$	5	V
Operating ambient temperature	$T_{opr}$	-30 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

Note) \*: The condition of  $I_{FP}$  is duty 10%, Pulse width 1 msec.

#### ■ Lighting Color

- Pure Green
- Red

- Red

Parameter	Symbol	Rating	Unit
Power dissipation	$P_D$	55	mW
Forward current	$I_F$	20	mA
Pulse forward current *	$I_{FP}$	60	mA
Reverse voltage	$V_R$	4	V
Operating ambient temperature	$T_{opr}$	-30 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

Note) \*: The condition of  $I_{FP}$  is duty 10%, Pulse width 1 msec.

#### ■ Electro-Optical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

- Pure Green

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Luminous intensity *1	$I_O$	$I_F = 5 \text{ mA}$	18.0	90.0	180.0	mcd
Forward current	$I_R$	$V_R = 5 \text{ V}$			100	$\mu\text{A}$
Forward voltage	$V_F$	$I_F = 5 \text{ mA}$		3.0	3.3	V
Peak emission wavelength	$\lambda_p$	$I_F = 5 \text{ mA}$		520		nm
Dominant emission wavelength *2	$\lambda_d$	$I_F = 5 \text{ mA}$	518	525	533	nm
Spectral half band width	$\Delta\lambda$	$I_F = 5 \text{ mA}$		40		nm

Note) \*1: Measurement tolerance:  $\pm 20\%$

\*2: Measurement tolerance:  $\pm 3 \text{ nm}$

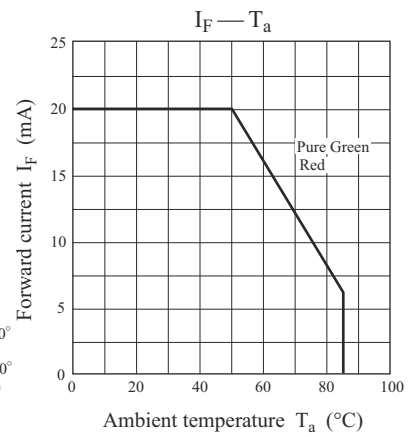
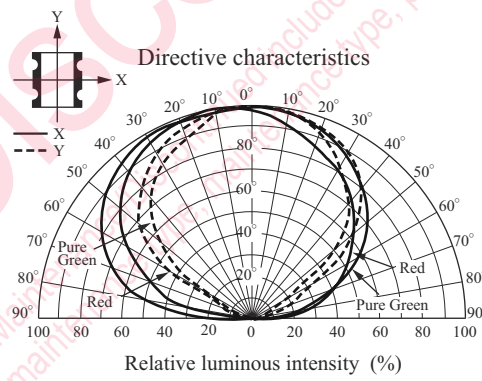
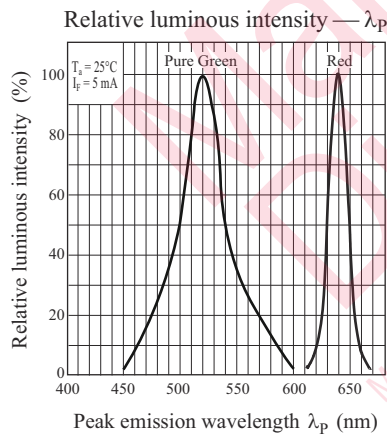
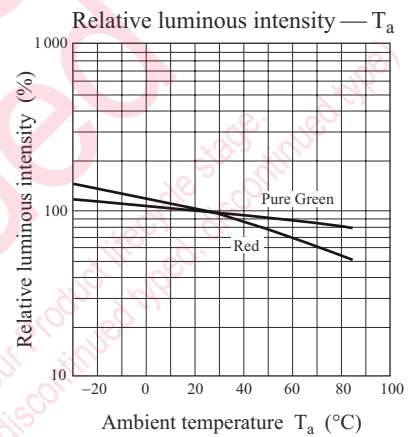
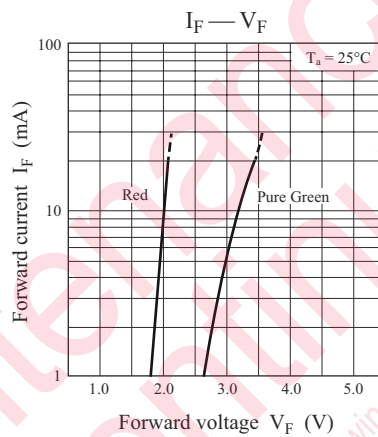
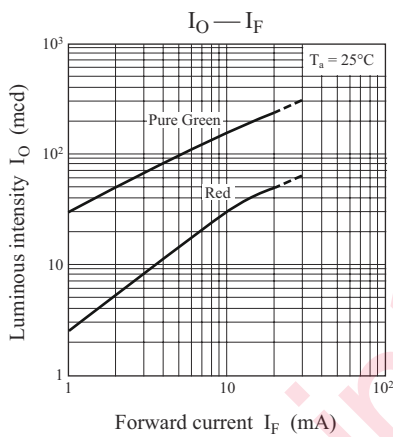
■ Electro-Optical Characteristics (Continued)  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

• Red

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Luminous intensity *1	$I_O$	$I_F = 5 \text{ mA}$	11.0	15.0	52.0	mcd
Reverse current	$I_R$	$V_R = 4 \text{ V}$			100	$\mu\text{A}$
Forward voltage	$V_F$	$I_F = 5 \text{ mA}$		1.95	2.30	V
Peak emission wavelength	$\lambda_p$	$I_F = 5 \text{ mA}$		638		nm
Dominant emission wavelength *2	$\lambda_d$	$I_F = 5 \text{ mA}$	615	628	634	nm
Spectral half band width	$\Delta\lambda$	$I_F = 5 \text{ mA}$		20		nm

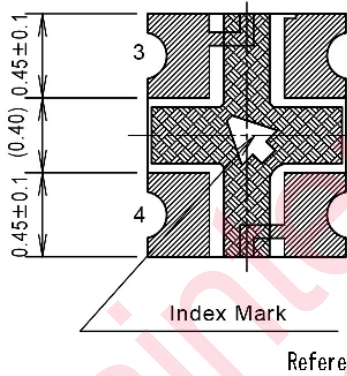
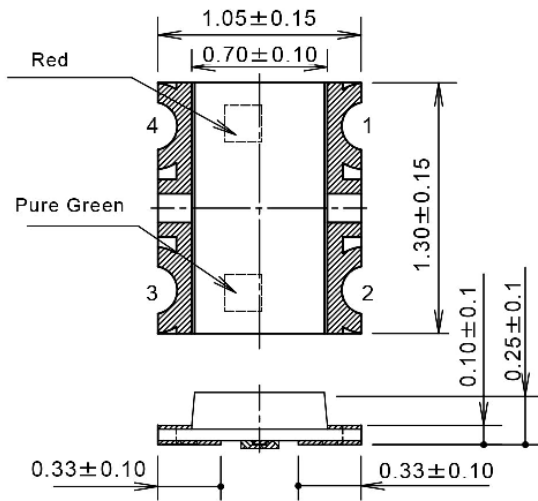
Note) \*1: Measurement tolerance:  $\pm 20\%$

\*2: Measurement tolerance:  $\pm 3 \text{ nm}$



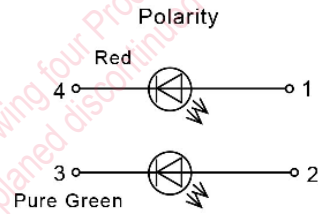
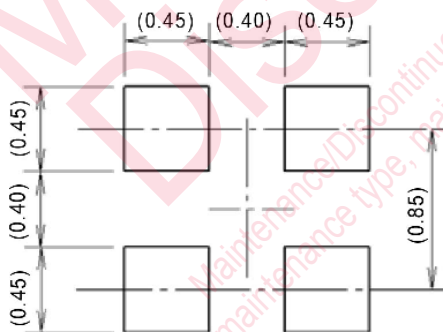
■ Package (Unit: mm)

Unit:mm



Item	Contents
Terminal Material	The Cu System
Terminal Process	Cu + Ni + Au Plate
Mold Material	Epoxy Resin
Print Board Material	BT Resin

Reference Land Layout



- 1. Anode (Red)
- 2. Anode (Pure Green)
- 3. Cathode (Pure Green)
- 4. Cathode (Red)

(Note1) Electrode projection is not included in the package dimensions.  
 (Note2) About solder thickness, please examine the products yourself completely.  
 (Recommended thickness : t=0.10 mm~0.15 mm)  
 (Note3) Do not install the pattern of the printed wiring board under LED.

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