LN66NC (LN66(NC))

GaAs Infrared Light Emitting Diode

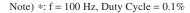
For optical control systems

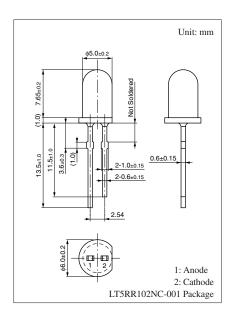
■ Features

- High-power output, high-efficiency: $P_O = 3 \text{ mW (min.)}$
- Emitted light spectrum suited for silicon photodetectors
- Good radiant power output linearity with respect to input current
- Wide directivity: $\theta = 25^{\circ}$ (typ.)
- Dark blue resin package

\blacksquare Absolute Maximum Ratings $~T_a = 25 ^{\circ}C$

Parameter	Symbol	Rating	Unit
Reverse voltage	V _R	3	V
Forward current	I_{F}	100	mA
Pulse forward current *	I_{FP}	1.5	A
Power dissipation	P_{D}	160	mW
Operating ambient temperature	T _{opr}	-25 to +85	°C
Storage temperature	T _{stg}	-40 to +100	°C





■ Electrical-Optical Characteristics $T_a = 25$ °C ± 3 °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	V _F	$I_F = 100 \text{ mA}$		1.3	1.6	V
Reverse current	I_R	$V_R = 3 V$			10	μΑ
Radiant power *1, 2	Po	$I_F = 50 \text{ mA}$	3.0			mW
Peak emission wavelength	λ_{P}	$I_F = 50 \text{ mA}$		950		nm
Spectral half band width	Δλ	$I_F = 50 \text{ mA}$		50		nm
Terminal capacitance	C _t	$V_R = 0 \text{ V, } f = 1 \text{ MHz}$		35		pF
Half-power angle	θ	The angle when the radiant power is halved		25		٥

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Cutoff frequency: 1 MHz

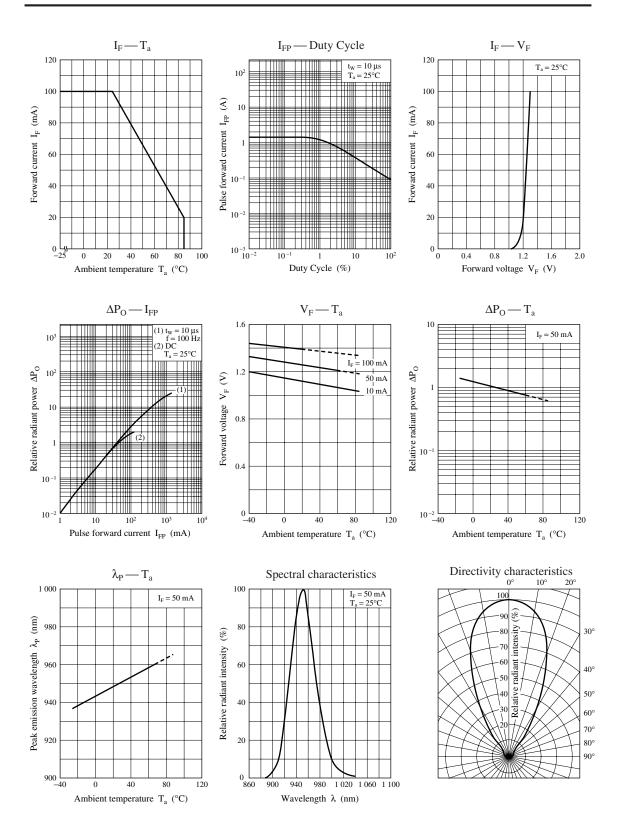
$$f_C$$
: $10 \times log \frac{P_O \text{ at } f = f_C}{P_O \text{ at } f = 50 \text{ kHz}} = -3$

3. *1: A light detection element uses a silicon diode have proofread a load with a standard device.

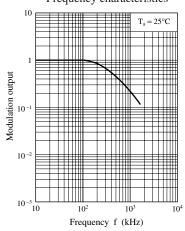
*2: Rank classification

Rank	Q	R	S	
P _O (mW)	3.0 to 6.0	5.0 to 8.0	>7.0	

Note) The part number in the parenthesis shows conventional part number.



Frequency characteristics



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Caution for Safety

⚠ DANGER

■ This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded form general industrial waste or household garbage.

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