

# LN671

## GaAlAs Infrared Light Emitting Diode

Light source for distance measuring systems

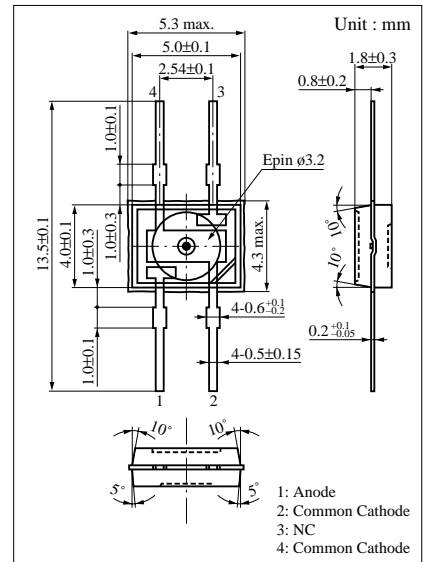
### ■ Features

- High-power output, high-efficiency :  $P_O = 10 \text{ mW}$  (typ.)
- Fast response and high-speed modulation capability :  
 $t_r, t_f = 30 \text{ ns}$ (typ.)
- Small plastic package

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

Parameter	Symbol	Ratings	Unit
Power dissipation	$P_D$	130	mW
Forward current (DC)	$I_F$	70	mA
Pulse forward current	$I_{FP}^*$	1	A
Reverse voltage (DC)	$V_R$	3	V
Operating ambient temperature	$T_{opr}$	-25 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-30 to +100	$^\circ\text{C}$

\*  $f = 100 \text{ Hz}$ , Duty cycle = 0.1 %



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

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	$P_O$	$I_F = 50\text{mA}$	6	10		mW
Peak emission wavelength	$\lambda_P$	$I_F = 50\text{mA}$		880		nm
Spectral half band width	$\Delta\lambda$	$I_F = 50\text{mA}$		50		nm
Forward voltage (DC)	$V_F$	$I_F = 50\text{mA}$		1.4	1.8	V
Reverse current (DC)	$I_R$	$V_R = 3\text{V}$			10	$\mu\text{A}$
Rise time	$t_r$	$I_{FP} = 50\text{mA}$		30		ns
Fall time	$t_f$	$I_{FP} = 50\text{mA}$		30		ns
Half-power angle	$\theta$	The angle in which radiant intensity is 50%		50		deg.

