

LNA4602L

GaAlAs Infrared Light Emitting Diode

For optical control systems

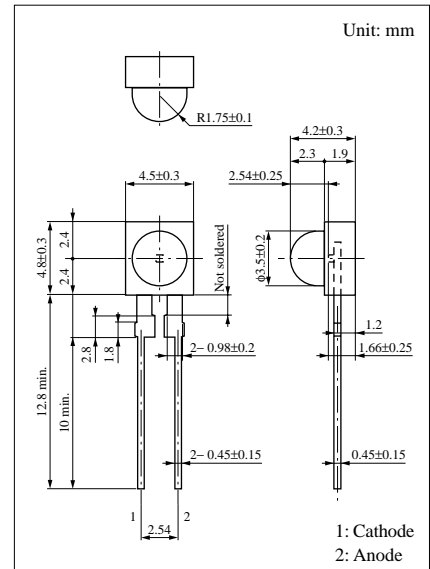
■ Features

- High-power output, high-efficiency
- Light-emitting pattern of almost point source
- Ultra-miniature, thin side-view type package

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

Parameter	Symbol	Rated	Unit
Pulse forward current *	I_{FP}	1.2	A
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-20 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to +70	$^\circ\text{C}$

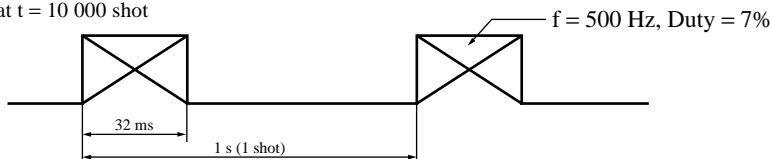
Note) *: $f = 100 \text{ Hz}$, Duty Cycle = 0.1%



■ Electro-optical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	$I_F = 50 \text{ mA}$	3			mW
Peak emission wavelength	λ_p	$I_F = 50 \text{ mA}$		850		nm
Spectral half band width	$\Delta\lambda$	$I_F = 50 \text{ mA}$		35		nm
Forward voltage (DC)	V_F	$I_F = 50 \text{ mA}$		1.5	1.9	V
Peak forward voltage	V_{FP}	$I_{FP} = 1 \text{ A}$, $t_w = 0.14 \text{ ms}$		2.9	3.8	V
Reverse current (DC)	I_R	$V_R = 3 \text{ V}$			100	μA
Half-power angle	θ	The angle in which radiant intensity is 50%		30		$^\circ$

Note) 1. $\Delta P_O \leq 35\%$ at $t = 10\,000$ shot



2. Frequency that the modulated total output power decreases by 3 dB from that of at 1 MHz.

$$\text{Cut-off Frequency: } 200 \text{ MHz} \quad f_C: 10 \log \frac{P_O(f_C \text{ MHz})}{P_O(1 \text{ MHz})} = -3$$