

# LED lamp

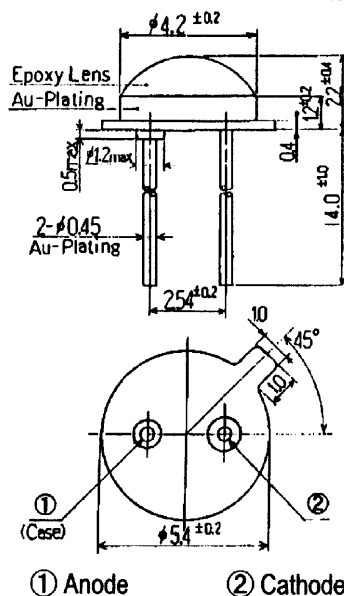
**ELD-1300-096**

Preliminary data

Radiation	Type	Technology	Case
Infrared	Chip mounted up side down	GaNAs/InP	TO 46 header with epoxy

Features: High output power,  
wide beam angle,  
high reliability

Applications: Optical switches,  
optical sensors



## Maximum Ratings\*

$T_{amb} = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		$I_F$	150	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$	$I_{FM}$	1000	mA
Reverse voltage	$I_R = 10 \mu\text{A}$	$V_R$	5	V
Power dissipation		$P_D$	180	mW
Operating temperature range		$T_{amb}$	-20 to +80	$^\circ\text{C}$
Storage temperature range		$T_{stg}$	-30 to +100	$^\circ\text{C}$

## Optical and Electrical Characteristics\*

$T_{amb} = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	$V_F$		0.82	1.0	V
Forward voltage	$I_F = 100 \text{ mA}$	$V_F$		1.0	1.2	V
Reverse voltage	$I_R = 10 \mu\text{A}$	$V_R$	5			V
Radiant power	$I_F = 20 \text{ mA}$	$\Phi_e$	0,5	1.0		mW
Radiant power	$I_F = 100 \text{ mA}$	$\Phi_e$	3,0	5		mW
Peak wavelength	$I_F = 100 \text{ mA}$	$\lambda_p$	1250	1300	1350	nm
Spectral bandwidth at 50%	$I_F = 100 \text{ mA}$	$\Delta\lambda_{0.5}$		70		nm
Full viewing angle		$\varphi$		180		deg.
Switching time	$I_F = 100 \text{ mA}$	$t_r, t_f$		10		ns

\*Proper heat sinking is required for good reliability at currents higher than 100 mA.

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