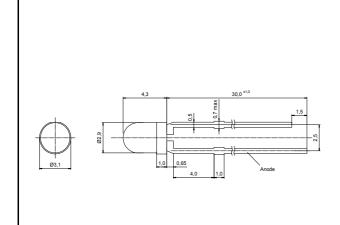
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Radiation	Туре	Technology	Case	
Infrared	DDH	AlGaAs/AlGaAs	3 mm plastic lens	



Description

High-power, high-speed infrared LED in standard 3 mm housing, small package allows compact design, housing with standoff leads

Note: Special packages without standoff available on request

Applications

Optical communications, safety equipment, automation, optical sensors

Maximum Ratings

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I _F	50	mA
Peak forward current	$(t_P \le 10 \ \mu s, \ T > 10 \ ms)$	I _{FM}	500	mA
Power dissipation		P_{D}	120	mW
Operating temperature range		T_{amb}	-20 to +85	°C
Storage temperature range		T_{stg}	-30 to +100	°C
Junction temperature		T _j	100	°C
Soldering temperature	$t \leq 5 \text{ s, } 3 \text{ mm from case}$	T_{sd}	260	°C

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Тур	Max	Unit
Forward voltage	I _F = 20 mA	V_{F}		1.6	1.9	V
Forward voltage*	I _F = 50 mA	V_{F}		1.7		V
Reverse voltage	I _R = 100 μA	V_{F}	5			V
Radiant power	I _F = 20 mA	Φ_{e}	4	6		mW
Radiant power*	I _F = 50 mA	Φ_{e}		15		mW
Radiant intensity	I _F = 50 mA	I_{e}	14	20		mW/sr
Peak wavelength	I _F = 20 mA	λ_{p}	795	805	825	nm
Spectral bandwidth at 50%	I _F = 20 mA	$\Delta\lambda_{0.5}$		30		nm
Viewing angle	I _F = 20 mA	φ		40		deg.
Switching time	I _F = 20 mA	t _r , t _f		40		ns

^{*}measured after 30s current flow

Note: All measurements carried out on EPIGAP equipment

LED - Lamp ELD-810-344

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Remarks concerning optical radiation safety*

Up to maximum forward current, at continuous operation, this LED may be classified as LED product *Class 1*, according to standard IEC 60825-1:A2. *Class 1* products are safe to eyes and skin under reasonably predictable conditions. This implicates a direct observation of the light beam by means of optical instruments.

*Note: Safety classification of an optical component mainly depends on the intended application and the way the component is being used. Furthermore, all statements made to classification are based on calculations and are only valid for this LED "as it is", and at continuous operation. Using pulsed current or altering the light beam with additional optics may lead to different safety classifications. Therefore these remarks should be taken as recommendation and guideline only.