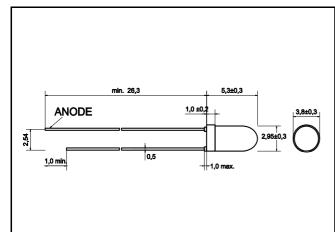
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Radiation	Туре	Technology	Case	
Infrared	DDH	AlGaAs/AlGaAs	3 mm plastic lens	



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	100	mA
Peak forward current	$(t_P \le 50 \ \mu s, \ t_P/T = 1/2)$	I _{FM}	200	mA
Power dissipation		P_{D}	200	mW
Operating temperature range		T_{amb}	-20 to +85	Ĉ
Storage temperature range		T_{stg}	-55 to +100	Ĉ
Soldering temperature	$t \le 5$ s, 3 mm from case	T_{sd}	260	C

Optical and Electrical Characteristics

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

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Parameter	Test conditions	Symbol	Min	Тур	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	V_{F}		1.4	1.7	V
Forward voltage*	I _F = 100 mA	V_{F}		1.65	1.9	V
Reverse voltage	I _R = 100 μA	V_{F}	5			V
Radiant power	$I_F = 20 \text{ mA}$		6	8		mW
Radiant power*	I _F = 100 mA	Φ_{e}		40		mW
Radiant intensity*	I _F = 100 mA	I _e	50	70		mW/sr
Peak wavelength	I _F = 20 mA	λ_{p}	870	880	900	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		45		nm
Viewing angle	I _F = 20 mA	φ		30		deg.
Switching time	I _F = 20 mA	t _{r,} t _f		25		ns

^{*}measured after 30s current flow

Note: All measurements carried out on EPIGAP equipment

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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.