

Radiation	Type	Technology	Case
Infrared	DDH	AlGaAs/AlGaAs	5 mm plastic lens

	<p>Description</p> <p>High-power, high-speed infrared LED in standard 5 mm package, with lens for optimal beam focusing, housing with standoff leads</p> <p>Note: Special packages without standoff available on request</p> <p>Applications</p> <p>Optical communications, safety equipment, automation, optical sensors</p>
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Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I_F	50	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$	I_{FM}	100	mA
Power dissipation		P_D	130	mW
Operating temperature range		T_{amb}	-40 to +100	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-40 to +100	$^{\circ}\text{C}$
Junction temperature		T_J	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		1,7	2,0	V
Forward voltage*	$I_F = 50 \text{ mA}$	V_F		2,0	2,4	V
Reverse voltage	$I_R = 10 \mu\text{A}$	V_F	5			V
Radiant power	$I_F = 20 \text{ mA}$	Φ_e	4,5	6,0		mW
Radiant power*	$I_F = 50 \text{ mA}$	Φ_e		14		mW
Radiant intensity	$I_F = 20 \text{ mA}$	I_e	20	30		mW/sr
Radiant intensity*	$I_F = 50 \text{ mA}$	I_e		70		mW/sr
Peak wavelength	$I_F = 50 \text{ mA}$	λ_p		740	750	nm
Spectral bandwidth at 50%	$I_F = 50 \text{ mA}$	$\Delta\lambda_{0,5}$		30		nm
Viewing angle	$I_F = 50 \text{ mA}$	φ		20		deg.
Switching time	$I_F = 50 \text{ mA}$	t_r, t_f		35		ns

*measured after 30s current flow

Note: All measurements carried out on *EPIGAP* equipment

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

EPIGAP Optoelektronik GmbH, D-12555 Berlin, Köpenicker Str.325 b, Haus 201

Tel.: +49-30-6576 2543, Fax : +49-30-6576 2545