

Radiation	Type	Technology	Case
Infrared	DH	AlGaAs/GaAs	5 mm plastic lens

	<b>Description</b> High-power, high-speed infrared LED in standard 5 mm package, wide beam angle, housing without standoff leads  Note: Special packages with standoff available on request
	<b>Applications</b> Optical communications, safety equipment, automation, optical sensors

### Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		$I_F$	100	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$	$I_{FM}$	200	mA
Power dissipation		$P_D$	150	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	$^{\circ}\text{C}$
Soldering temperature	$t \leq 5 \text{ s}$ , 3 mm from case	$T_{sd}$	260	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	$V_F$		1,17		V
Forward voltage*	$I_F = 100 \text{ mA}$	$V_F$		1,3	1,5	V
Reverse voltage	$I_R = 100 \mu\text{A}$	$V_F$	5			V
Radiant power	$I_F = 20 \text{ mA}$	$\Phi_e$	3,8	5,5		mW
Radiant power*	$I_F = 100 \text{ mA}$	$\Phi_e$	20	26		mW
Radiant intensity	$I_F = 20 \text{ mA}$	$I_e$	7,5	10		mW/sr
Radiant intensity*	$I_F = 100 \text{ mA}$	$I_e$	30	45		mW/sr
Peak wavelength	$I_F = 50 \text{ mA}$	$\lambda_p$	930	950	950	nm
Spectral bandwidth at 50%	$I_F = 50 \text{ mA}$	$\Delta\lambda_{0.5}$		65		nm
Viewing angle	$I_F = 50 \text{ mA}$	$\varphi$		45		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.

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