

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

		Description
		High-power, high-speed infrared LED in standard 5 mm package (T1), housing without standoff leads  Note: Special packages with standoff available on request
Applications		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
Operating temperature range		$T_{amb}$	-20 to +80	°C
Storage temperature range		$T_{stg}$	-30 to +100	°C
Junction temperature		$T_J$	100	°C

### Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage*	$I_F = 20 \text{ mA}$	$V_F$		1.6	1.9	V
Reverse voltage	$I_R = 100 \mu\text{A}$	$V_F$	5			V
Radiant power*	$I_F = 20 \text{ mA}$	$\Phi_e$	4.5	6.5		mW
Radiant power*	$I_F = 100 \text{ mA}$	$\Phi_e$		33		mW
Radiant intensity*	$I_F = 100 \text{ mA}$	$I_e$		190		mW/sr
Peak wavelength	$I_F = 20 \text{ mA}$	$\lambda_p$	830	840	850	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		35		nm
Viewing angle	$I_F = 20 \text{ mA}$	$\varphi$		20		deg.
Switching time	$I_F = 20 \text{ mA}$	$t_r, t_f$		40		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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