

Radiation	Type	Technology	Case
Red	Standard	AllnGaP/GaAs	5 mm plastic lens

	Description Red LED in standard 5 mm package with lens, housing without standoff leads Note: Special packages with standoff available on request
	Applications Optical communications, safety equipment, automation

Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I_F	30	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$	I_{FM}	100	mA
Power dissipation		P_D	100	mW
Operating temperature range		T_{amb}	-40 to +85	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-40 to +100	$^{\circ}\text{C}$
Junction temperature		T_J	100	$^{\circ}\text{C}$
Soldering temperature	$t \leq 5 \text{ s}, 3 \text{ mm from case}$	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		2,15	2,5	V
Reverse voltage	$I_R = 10 \mu\text{A}$	V_R	5			V
Radiant power*	$I_F = 20 \text{ mA}$	Φ_e	1,0	2,0		mW
Luminous intensity	$I_F = 20 \text{ mA}$	I_v	3000	4000	4600	mcd
Luminous flux	$I_F = 20 \text{ mA}$	Φ_v	460	500	540	mlm
Peak wavelength	$I_F = 20 \text{ mA}$	λ_p		625		nm
Dominant wavelength	$I_F = 20 \text{ mA}$	λ_D	608	618	628	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		18		nm
Viewing angle	$I_F = 20 \text{ mA}$	φ		20		deg.
Switching time	$I_F = 20 \text{ mA}$	t_r, t_f		10		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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