



LED - Lamp

ELD-1020-525

04.11.2009

rev. 01

Radiation	Type	Technology	Case
Infrared	MQW	InGaAs/InP	5 mm plastic lens

	Description High-power, high-speed infrared LED in standard 5 mm package, 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	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}	-20 to +80	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-55 to +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		1.05	1.25	V
Forward voltage*	$I_F = 100 \text{ mA}$	V_F		1.15	1.35	V
Reverse voltage	$I_R = 100 \mu\text{A}$	V_R	5			V
Radiant power	$I_F = 20 \text{ mA}$	Φ_e		1.0		mW
Radiant power*	$I_F = 100 \text{ mA}$	Φ_e		6.0		mW
Peak wavelength	$I_F = 20 \text{ mA}$	λ_p	1000	1020	1040	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		50		nm
Viewing angle	$I_F = 20 \text{ mA}$	φ		20		deg.
Switching time	$I_F = 20 \text{ mA}$	t_r, t_f		25; 40		ns

*for information only