



## LED - Lamp

## ELD-1550-525

15.11.2007

rev. 04

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

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

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I <sub>F</sub>	100	mA
Peak forward current	(t <sub>p</sub> ≤ 50 μs, t <sub>p</sub> /T = 1/2)	I <sub>FM</sub>	200	mA
Power dissipation		P <sub>D</sub>	150	mW
Operating temperature range		T <sub>amb</sub>	-20 to +80	°C
Storage temperature range		T <sub>stg</sub>	-55 to +100	°C
Soldering temperature	t ≤ 5 s, 3 mm from case	T <sub>sd</sub>	260	°C

### Optical and Electrical Characteristics

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> = 20 mA	V <sub>F</sub>		0.75	0.9	V
Forward voltage*	I <sub>F</sub> = 100 mA	V <sub>F</sub>		0.85		V
Reverse voltage	I <sub>R</sub> = 100 μA	V <sub>R</sub>	5			V
Radiant power	I <sub>F</sub> = 20 mA	Φ <sub>e</sub>	1,1	1,4		mW
Radiant power*	I <sub>F</sub> = 100 mA	Φ <sub>e</sub>		5,0		mW
Peak wavelength	I <sub>F</sub> = 20 mA	λ <sub>p</sub>	1530	1550	1570	nm
Spectral bandwidth at 50%	I <sub>F</sub> = 20 mA	Δλ <sub>0.5</sub>		130		nm
Viewing angle	I <sub>F</sub> = 20 mA	φ		20		deg.
Switching time	I <sub>F</sub> = 20 mA	t <sub>r</sub> , t <sub>f</sub>		10		ns

\*for information only