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Data sheet

Infrared LED

EOLD-850-525

Rev. 03, 2017

Radiation	Type	Case
Infrared	AlGaAs, DDH	5 mm plastic lens

Description:	
	<p>High-power, high-speed infrared LED in standard 5 mm package, with lens for narrow beam focusing, housing with standoff leads</p> <p>All dimensions in mm</p>

Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current		I_F	150	mA
Peak forward current	$t_p \leq 50 \mu\text{s}$, $t_p / T = 1/2$	I_{FM}	200	mA
Power dissipation		P_D	200	mW
Operating temperature range		T_{amb}	-20 to +80	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-40 to +85	$^{\circ}\text{C}$
Lead soldering temperature	$t < 5 \text{ s}$, 3 mm from case	T_{slg}	260	$^{\circ}\text{C}$
Junction temperature		T_J	100	$^{\circ}\text{C}$

Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 20 \text{ mA}$		1.4	1.6	V
Forward voltage	V_F	$I_F = 100 \text{ mA}$		1.6	2	V
Reverse voltage	V_R	$I_R = 10 \mu\text{A}$	5			V
Radiant power	Φ_e	$I_F = 20 \text{ mA}$	7	11		mW
Radiant power	Φ_e	$I_F = 100 \text{ mA}$		45		mW
Peak wavelength	λ_p	$I_F = 20 \text{ mA}$	840	850	860	nm
FWHM	$\Delta\lambda_{0.5}$	$I_F = 20 \text{ mA}$		40		nm
Viewing angle	φ	$I_F = 20 \text{ mA}$		20		deg.
Switching times	t_r, t_f	$I_F = 20 \text{ mA}$		10; 20		ns

Art. No. 430 009



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.