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customized optoelectronics



Product Data Sheet

LED Lamp Infra Red

EOLD-900-525

Rev. 01 aus 2011

Radiation	Type	Case
Infra Red	DDH	5mm plastic lens

Description:	
	<p>High-power, high-speed infrared LED in standard 5 mm package , with lens for narrow beam focusing, housing without standoff leads</p>

Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward Current		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	180	mW
Operating temp. range		T_{amb}	-20 to +80	$^{\circ}\text{C}$
Storage temp. range		T_{stg}	-40 to +100	$^{\circ}\text{C}$
Lead soldering temp.	$t < 5\text{s}$, 3mm from case	T_{slg}	260	$^{\circ}\text{C}$

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		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	$I_F = 20\text{mA}$		10		mW
Radiant Power	Φ_e	$I_F = 100\text{mA}$		45		mW
Radiant intensity	I_e	$I_F = 20\text{mA}$		40		mW/sr
Radiant intensity	I_e	$I_F = 100\text{mA}$		190		mW/sr
Peak wavelength	λ_p	$I_F = 100\text{mA}$	890	900	910	nm
Spectral bandwidth at 50%	$\Delta\lambda_{0,5}$	$I_F = 100\text{mA}$		65		nm
Viewing angle	φ	$I_F = 100\text{mA}$		20		deg.
Switching time	t_r, t_f	$I_F = 100\text{mA}$		35		ns