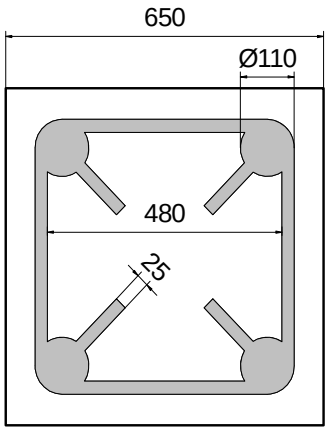
LED - Chip

ELC-870-12

26.04.2012 rev. 06

Radiation	Type	Technology	Electrodes
Infrared	DDH	AlGaAs/AlGaAs	P (anode) up



LED-07

typ. dimensions (µm)

typ. thickness
180 µm

anode
gold alloy, 1.5 µm

cathode
gold alloy, 0.5 µm
structured, 25% covered

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 20 mA	V_F		1.3	1.6	V
Forward voltage[3]	I_F = 300 mA	V_F		1.6		V
Reverse voltage	I_R = 100 µA	V_R	5			V
Radiant power[1]	I_F = 20 mA	Φ_e	2.8	3.7		mW
Radiant power[2]	I_F = 20 mA	Φ_e		7.0		mW
Radiant power[3]	I_F = 300 mA	Φ_e		50		mW
Radiant intensity[1]	I_F = 20 mA	I_e	0.75	1.0		mW/sr
Radiant intensity[3]	I_F = 300 mA	I_e		13.5		mW/sr
Peak wavelength	I_F = 20 mA	λ_p	860	870	880	nm
Spectral bandwidth at 50%	I_F = 20 mA	$\Delta\lambda_{0.5}$		45		nm
Switching time	I_F = 20 mA	t_r, t_f		10/25		ns

[1]Measured on bare chip on TO-18 header
[2]Measured on epoxy covered chip on TO-18 header
[3]Measured on bare chip on TO-18 header and heat sink, 10s current flow (information only)

Labeling

Type	Lot N°	Φ_e(typ) [mW]	V_F(typ) [V]	Quantity
ELC-870-12				

Packing: Chips on adhesive film with wire-bond side on top

Note: All measurements carried out with JENOPTIK Polymer Systems 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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