v 1.1 27.11.2014

LED570-06

- Yellow LED
- 570 nm, 0.6 mW
- Chip Material: AlGaInP
- 5 mm Clear Mold, Epoxy Resin
- Viewing Angle: 6°





Description

LED570-06 contains a AlGaInP LED mounted on a lead frame hermetically sealed with a clear epoxy

On forward bias, it emits a power radiation of typical **0.6 mW** at a peak wavelength at **570 nm**.

Maximum Ratings (TCASE=25°C)

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Parameter	Symbol	Min.	Max.	Unit
Power Dissipation	P_D		120	mW
Forward Current	IF		20	mA
Pulse Forward Current *1	I _{FP}		100	mA
Reverse Voltage	V _F		5	V
Thermal Resistance	R_{THJA}		300	K/W
Junction Temperature	T_J		120	°C
Operating Temperature	T_{CASE}	- 40	+ 85	°C
Storage Temperature	T_{STG}	- 40	+ 100	°C
Lead Solder Temperature *2	T_{SLD}		+ 250	°C

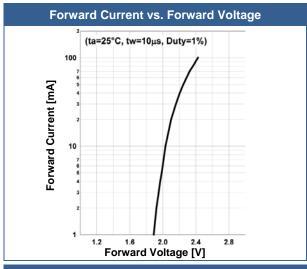
Electro-Optical Characteristics $(T_{CASE}=25^{\circ}C)$

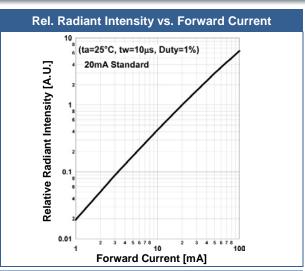
Parameter	Symbol	Conditions	Min.	Values Typ.	Max.	Unit
Peak Wavelength	λ_P	I _F =20mA	560	570	580	nm
Half Width	$\Delta \lambda$	I _F =20mA		15		nm
Forward Voltage	V_F	$I_F=20mA$		2.1	2.3	V
	V_{FP}	I _{FP} =100mA		2.4		
Radiated Power *1	Po	I _F =20mA		0.6		mW
		I _{FP} =100mA		3.8		
Radiant Intensity *2	I _E	I _F =20mA		5.5		mW/sr
		I _{FP} =100mA		35		
Brightness	I_V	I _F =20mA		7.8		cd
Viewing Angle	φ	I _F =100mA		6		deg.
Rise Time	t_R	I _F =20mA		70		ns
Fall Time	t⊱	I _F =20mA		65		ns

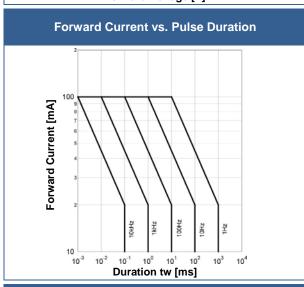
^{*&}lt;sup>1</sup> duty=1%, pulse width = 10 μs *² must be completed within 5 seconds

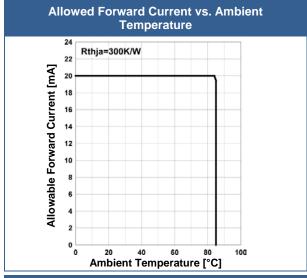
 ^{*1} measured by S3584-08
*2 measured by CIE127-2007 Condition B

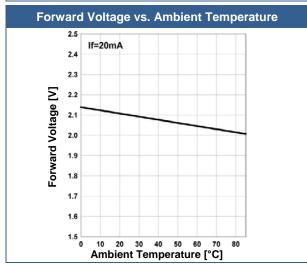
Typical Performance Curves

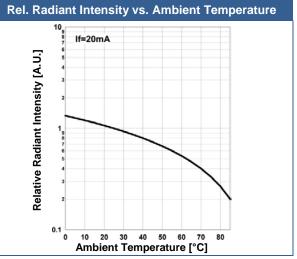










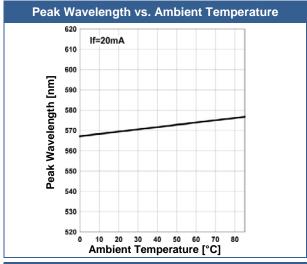


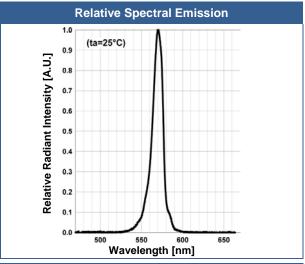


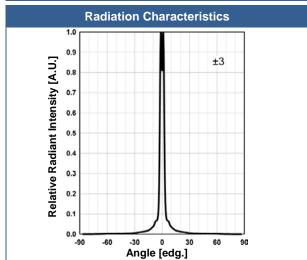
ROITHNER LASERTECHNIK GMBH

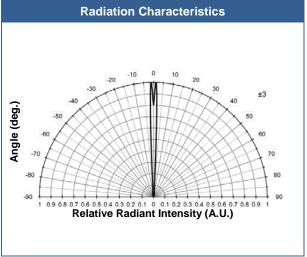
WIEDNER HAUPTSTRASSE 76 IO40 VIENNA AUSTRI TEL. +43 I 586 52 43 -0. FAX. -44 OFFICE@ROITHNER-LASER.COM



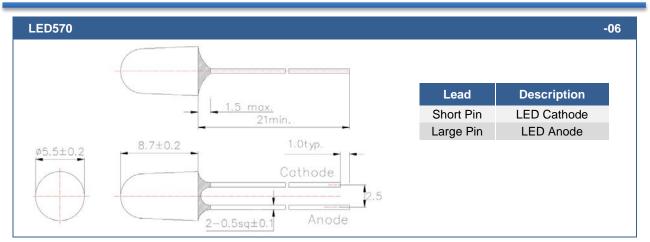








Outline Dimensions



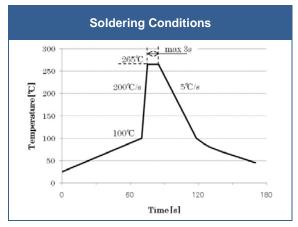
All Dimensions in mm

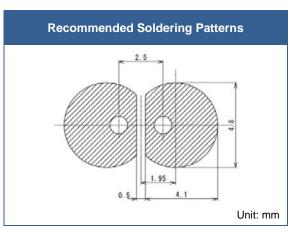
Precautions

Soldering:

- · Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not apply current to the LED until it has cooled down to room temperature after soldering
- Do not solder the LED closer than 3 mm from the base of the lead.

Recommended soldering conditions:





Above table specifies the maximum allowed duration and temperature during soldering. It is strongly advised to perform soldering at the shortest time and lowest temperature possible.

Cleaning:

Cleaning with isopropyl alcohol, propanol, or ethyl alcohol is recommended

DO NOT USE acetone, chloroseen, trichloroethylene, or MKS

DO NOT USE ultrasonic cleaners

Static Electricity:

LEDs are sensitive to electrostatic discharge (ESD). Precautions against ESD must be taken when handling or operating these LEDs. Surge voltage or electrostatic discharge can result in complete failure of the device.

Radiation:

During operation these LEDs do emit light, which could be hazardous to skin and eyes, and may cause cancer. Do avoid exposure to the emitted light. Protective glasses if needed. It is further advised to attach a warning label on products/systems.

Operation:

Do only operate LEDs with a current source.

Running these LEDs from a voltage source will result in complete failure of the device.

Current of a LED is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory.

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