

iC-TL6 BLCC2 1206

Point Source LED



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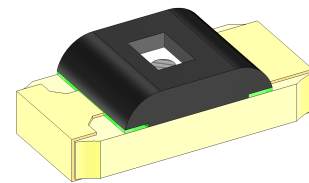
FEATURES

- ◆ Point Source LED
- ◆ High brightness Ultra Red LED
- ◆ Glass cover
- ◆ High temperature range -40 to 125 °C
- ◆ SMD 1206 LED Package

APPLICATIONS

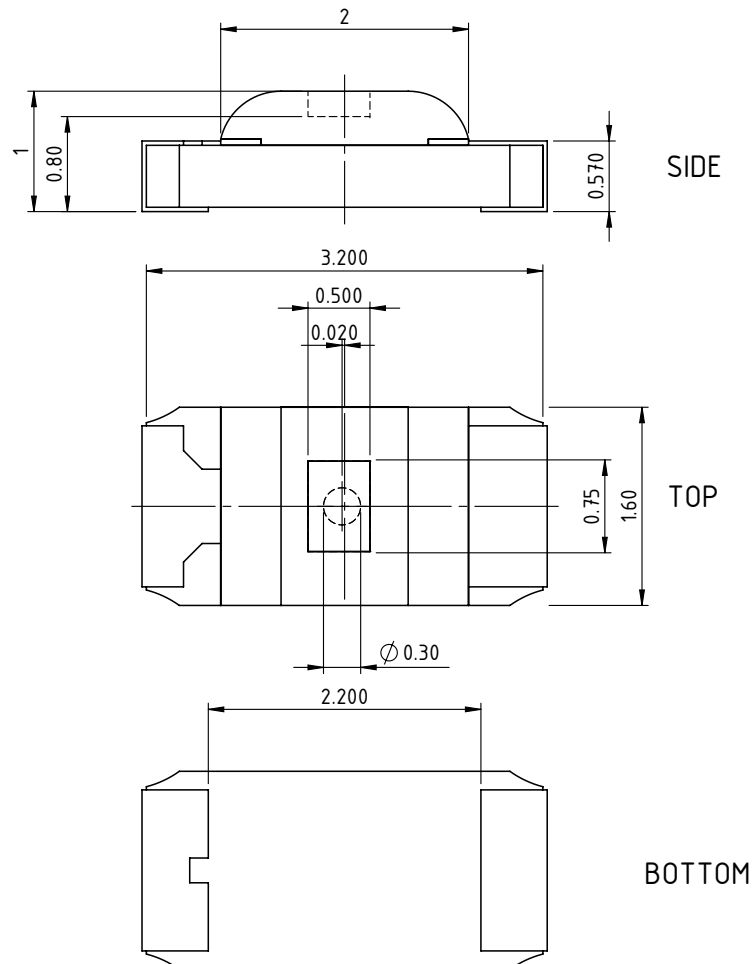
- ◆ Illumination for high resolution optical encoders, PSDs and optical line-scanners
- ◆ Modulated light barriers

PACKAGE



TL6-BLCC2-1206

DIMENSIONS



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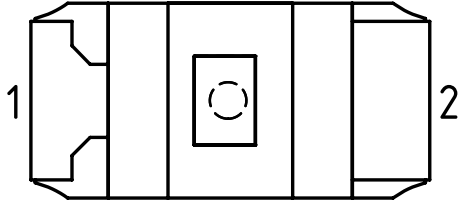
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PACKAGING INFORMATION

PIN CONFIGURATION TL6 BLCC2 1206



PIN FUNCTIONS

No. Name Function

1 A Anode
2 C Cathode

ABSOLUTE MAXIMUM RATINGS

Beyond these values damage may occur ($T_a = 25^\circ\text{C}$, unless otherwise noted)

Item No.	Symbol	Parameter	Conditions	Min. Max.		Unit
				Min.	Max.	
G001	IF	Forward current (DC)			50	mA
G002	IFSM	Surge forward current	$t_p \leq 10 \mu\text{s}$		1000	mA
G003	VR	Reverse voltage			5	V
G004	P	Power dissipation	Case temperature 25°C		150	mW

All voltages are referenced to ground unless otherwise stated.

All currents flowing into the device pins are positive; all currents flowing out of the device pins are negative.

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THERMAL DATA

Item No.	Symbol	Parameter	Conditions				Unit
				Min.	Typ.	Max.	
T01	Ta	Operating Ambient Temperature Range		-40		125	°C
T02	Ts	Storage Temperature Range		-40		125	°C
T03	Tpk	Reflow Soldering Peak Temperature	Convection reflow: tpk < 20 s, MSL 3 (168 h floor live at 30 °C and 60 % RH); Please refer to customer information file No. 7 for details. Not recommended for vapor phase soldering.			260	°C
T04	Rthja	Thermal resistance junction to ambient			750		K/W

ELECTRICAL CHARACTERISTICS

Ta = 25 °C, unless otherwise noted

Item No.	Symbol	Parameter	Conditions				Unit
				Min.	Typ.	Max.	
Electrical and Optical Characteristics							
001	VF	Forward Voltage	IF = 50 mA		1.8	2.6	V
002	VR	Reverse Voltage	IR = 5 µA	5			V
003	ϕ_e	Radiant Power	IF = 50 mA, 300 µm point source		4.5		mW
004	TK(ϕ_e)	Temperature Coefficient of Radiant Power	IF = 20 mA, Tj = 25...125 °C		-0.6		%/K
005	λ_p	Peak Wavelength	IF = 20 mA		640		nm
006	$\Delta\lambda$	Spectral Half Width	IF = 20 mA		30		nm

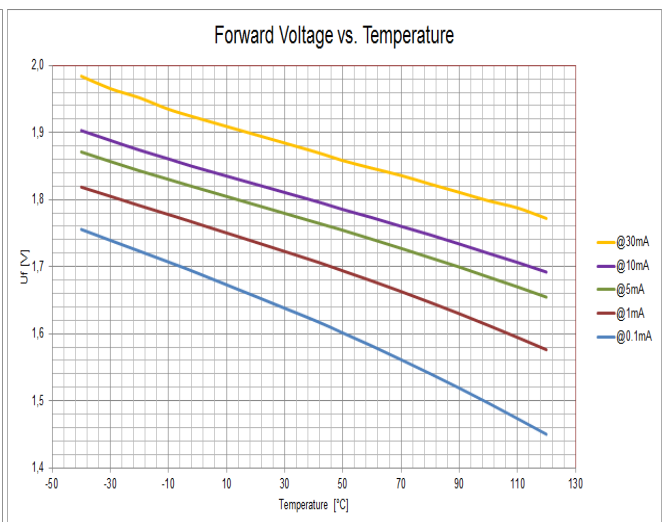
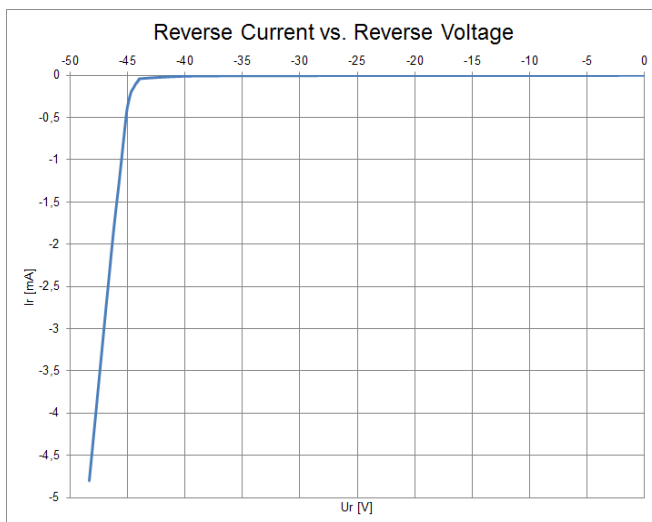
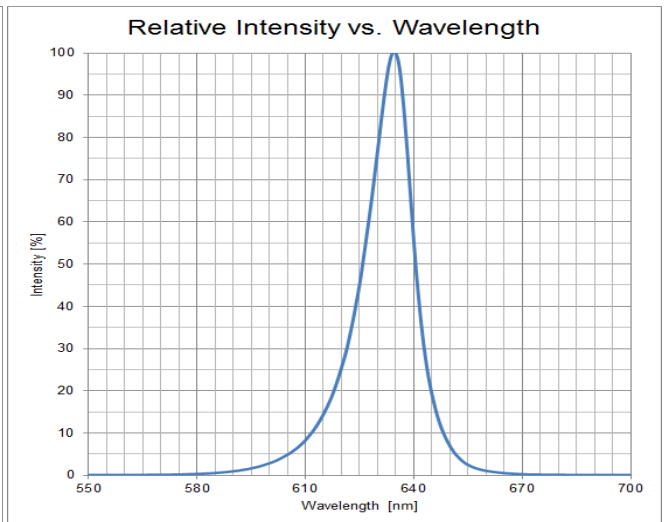
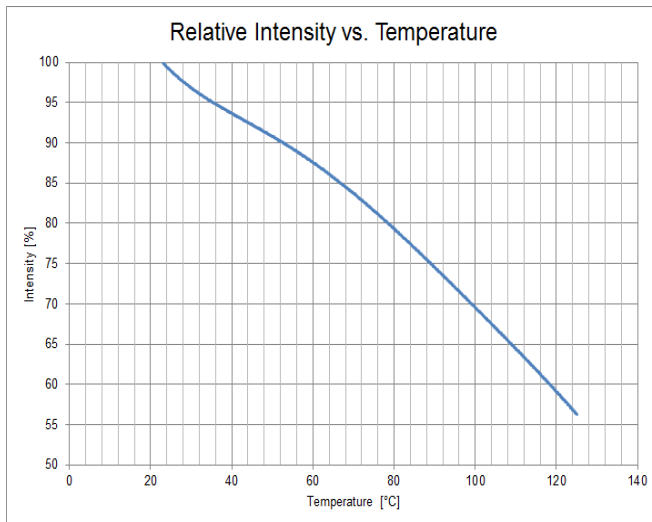
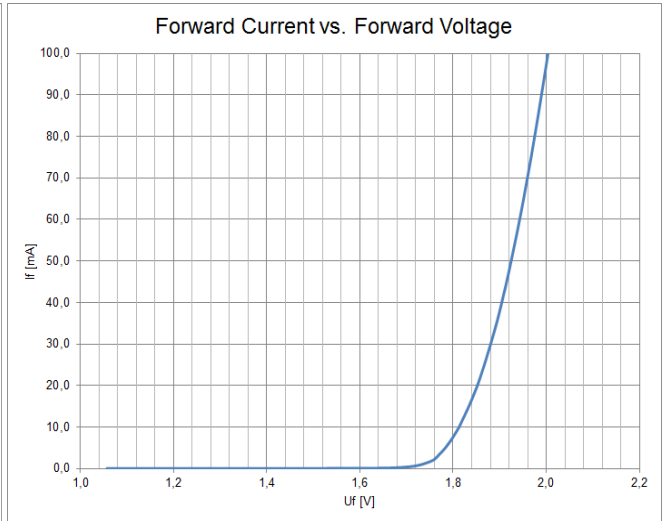
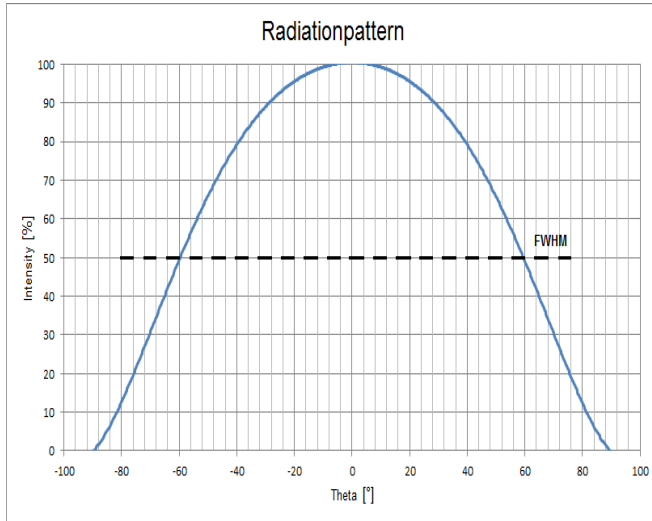
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DIAGRAMS



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SAFETY ADVICES

Depending on the mode of operation, these devices emit highly concentrated visible red light which can be hazardous to the human eye.

Products which incorporate these devices have to follow the safety precautions given in IEC 60825-1 and IEC 62471.

HANDLING ADVICES

Because of the specific housing materials and geometries used, these LED devices are sensitive to rough handling or assembly and can thus be easily damaged

or may fail in regard to their electro-optical operation. Excessive mechanical stress or load on the glass surface must be avoided.

DESIGN REVIEW: Notes on chip characteristics

iC-TL6			
No.	Chip Design	Function, Parameter/Code	Description and Application Hints
1	iC-TL6	initial chip release	

Table 4: Notes on chip functions regarding iC-TL6

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ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-TL6	BLCC2 1206 RoHS compliant	Standard reticle TL6 1R	iC-TL6 BLCC2 1206 TL6_1R

Please send your purchase orders to our order handling team:

Fax: +49 (0) 61 35 - 92 92 - 692

E-Mail: dispo@ichaus.com

For technical support please contact:

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Am Kuemmerling 18
D-55294 Bodenheim
GERMANY

Tel.: +49 (0) 61 35 - 92 92 - 0
Fax: +49 (0) 61 35 - 92 92 - 192
Web: <http://www.ichaus.com>
E-Mail: sales@ichaus.com

Appointed local distributors: http://www.ichaus.com/sales_partners

Distribution in Germany:

iC-TL6 = C4L-CL300HRE

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