

iC-SD85 BLCC SD1C

Infrared LED

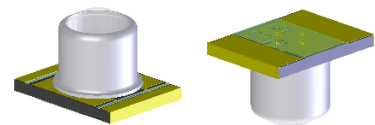
FEATURES

Emission peak at 850 nm matched to silicon detectors and opto ICs
 Narrow irradiance pattern
 High temperature range -40 to 125 °C
 High switching speed
 Packages suitable for SMT mounting

APPLICATIONS

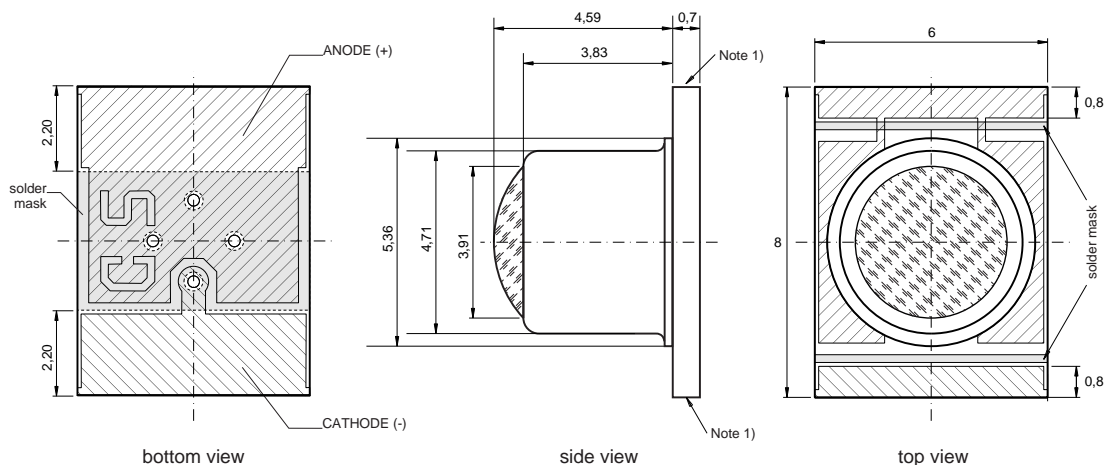
Illumination for high resolution optical encoder
 Modulated light barriers

PACKAGE





BLCC SD1C

DIMENSIONS



All dimensions in mm

Notes:
 1) Edges metallized
 2) Metallized areas indicated with  or 

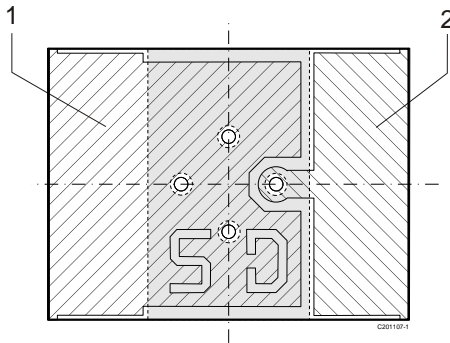


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PACKAGES

PIN CONFIGURATION SD1C



bottom view

PIN FUNCTIONS

No. Name Function

1	A	Anode
2	C	Cathode

ABSOLUTE MAXIMUM RATINGS

Beyond these values damage may occur (Ta = 25°C, unless otherwise noted)

Item No.	Symbol	Parameter	Conditions	Min.		Max.		Unit
G001	IF	Forward current (DC)				50		mA
G002	IFM	Peak forward current	tp ≤ 50μs, tp/T=0,5			100		mA
G003	IFSM	Surge forward current	tp ≤ 10μs			1000		mA
G004	VR	Reverse voltage				5		V
G005	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, TOL (time on label) 8 h Please refer to customer information file No. 7 for details. Not suitable for vapor phase soldering.			260	°C
T04	Rthja	Thermal resistance junction to ambient			270		K/W

ELECTRICAL CHARACTERISTICS

Ta = 25 °C, unless otherwise noted

Item No.	Symbol	Parameter	Conditions				Unit
				Min.	Typ.	Max.	
Electrical and Optical Characteristics							
001	V _F	Forward Voltage	IF = 10 mA		1.65	1.9	V
002	V _F	Forward Voltage	IF = 20 mA		1.75	2.0	V
003	V _R	Reverse Voltage	IR = 100 µA	5			V
004	φ _e	Radiant Power	IF = 10 mA	0.5	0.9		mW
005	φ _e	Radiant Power	IF = 20 mA	1.0	1.8		mW
006	TK(φ _e)	Temperature Coefficient of Radiant Power	IF = 5 mA, Ta = 25 °C...125 °C		-0.6		%/K
007	λ _p	Peak Wavelength	IF = 10 mA	830	850	870	nm
008	Δλ	Spectral Half Width	IF = 10 mA		26		nm
009	2φ	Divergence	IF = 10 mA		8		deg.
010	tr, tf	Switching Time	IF = 10 mA		50		ns

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We understand suitable application of our published designs to be state-of-the-art technology which can no longer be classed as inventive under the stipulations of patent law. Our explicit application notes are to be treated only as mere examples of the many possible and extremely advantageous uses our products can be put to.

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preliminary



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ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-SD85	SD1C		iC-SD85 BLCC SD1C

For technical support, information about prices and terms of delivery please contact:

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