iC-TL85 TO46-2L1

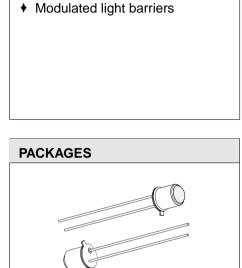
Infrared LED



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FEATURES

- Emission peak at 850 nm matched to silicon sensors
- Optimized irradiance pattern
- ♦ Temperature range -40 to 125 °C
- High optical output power
- ♦ Fast switching speed
- ♦ TO-46 package for high reliability
- ♦ ROHS conform



TO46-2L1

♦ Illumination for high resolution

APPLICATIONS

optical encoder

DIMENSIONAL OUTLINE 5.82 ±0.3 27.0 ±1.60 5.06 ± 0.05 ?.og Ø 5.31 +0.075 0.43 (2)(2) anode (common to case) Ø 4.71^{+0.02} $03.9^{+0.00}_{-0.05}$ 2.54 04+0.10 1 $Ø 0.43_{-0.025}^{+0.05}$ (1)(1) cathode 0.35 max. 1.17 + 0.05 TO46-2L1 Note 1) 45° ±3° Dimensions in mm 1) Lens cap TO-18 (see SCHOTT SL 10.032.901 specification for details)



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ABSOLUTE MAXIMUM RATINGS

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

Item	Symbol	Parameter	Conditions			Unit
No.	-			Min.	Max.	
G001	IF	Forward current (DC)			100	mA
G002	IFSM	Surge forward current	tp \leq 10µs, 5 % duty cycle		1500	mA
G003	VR	Reverse voltage			5	V
G004	Р	Power dissipation			150	mW
G005	Tj	Junction temperature		-40	125	°C

THERMAL DATA

Item	Symbol	Parameter	Conditions	1			Unit
No.				Min.	Тур.	Max.	
T01	Та	Operating Ambient Temperature Range		-40		125	°C
T02	Ts	Storage Temperature Range		-40		125	°C
T03	Tpk	Soldering Temperature	tpk < 5 s, 3 mm from case			260	°C
T04	Rthja	Thermal Resistance Junction To Ambient			350		K/W

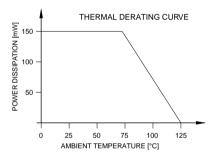


Figure 1: Maximum power dissipation with respect to temperature

ELECTRICAL CHARACTERISTICS

ltem	Symbol	Parameter	Conditions				
No.				Min.	Тур.	Max.	
Electr	ical and O	ptical Characteristics					
001	VF	Forward voltage	IF = 20 mA		1.4	1.8	
002	VR	Reverse voltage	IR = 5 μA	5			V
003	ϕ_{e}	Radiant power	IF = 20 mA	1.1	1.8		mW
004	$TK(\phi_{e})$	Temperature coefficient of radiant power	IF = 20 mA, Tamb = 25°C125°C		-0.6		%/K
005	λ _p	Peak wavelength	IF = 20 mA	840	850	860	nm
006	Δλ	Spectral half width	IF = 20 mA		30		nm
008	tr, tf	Switching time	IF = 20 mA		12		ns

iC-TL85 TO46-2L1 Infrared LED



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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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ORDERING INFORMATION

Туре	Package	Order Designation
iC-TL85	TO46-2L1 (long lens cap)	iC-TL85 TO46-2L1

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

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