



SLED-56HL1

GaAs Infrared Emitting Diode

Features

- High output at low current
- Narrow emission angle
- Multiple power ranges
- TO-46 package

Description

The Silonex SLED-56HL1 is a high output Gallium Arsenide infrared emitting diode which produces a peak radiation at 940 nm when forward biased. It is contained in a high dome lens, TO-46 hermetic package.

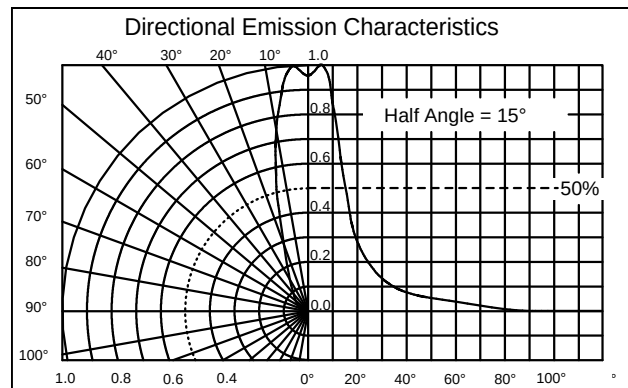
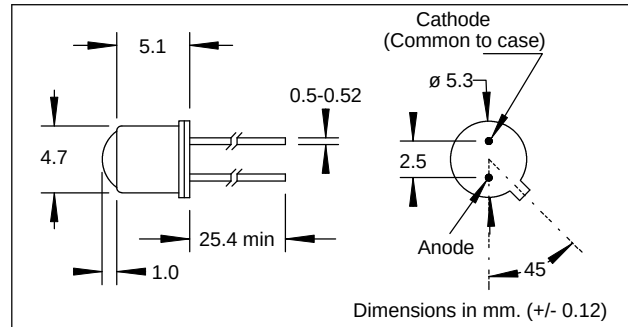
Absolute Maximum Ratings

Storage Temperature	-65 to +125°C
Operating Temperature	-65 to +125°C
Soldering Temperature (1)	260°C
Average Forward Current	100 mA
Power Dissipation (2)	150 mW

Notes: (1) >2mm from case for <5 sec.

(2) derate 1.5 mW/°C above 25°C

(3) This is the average radiant intensity on a 0.250" diameter surface at a distance of 1.5" from the lens side of the tab to the sensing surface, forming a 10° cone.



Electrical Characteristics (T_A=25°C unless otherwise noted)

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
P _O	Output Power					
	SLED-56HL1A		2.0		mW	I _F = 50 mA
	SLED-56HL1B		3.0		mW	I _F = 50 mA
	SLED-56HL1C		4.0		mW	I _F = 50 mA
	SLED-56HL1D		5.0		mW	I _F = 50 mA
	SLED-56HL1E		6.0		mW	I _F = 50 mA
E _{e(APT)}	Aperture Radiant Intensity					
	SLED-56HL1A	0.10			mW/cm ²	I _F = 50 mA, @ 10° (3)
	SLED-56HL1B	0.50			mW/cm ²	I _F = 50 mA, @ 10° (3)
	SLED-56HL1C	0.75			mW/cm ²	I _F = 50 mA, @ 10° (3)
	SLED-56HL1D	1.00			mW/cm ²	I _F = 50 mA, @ 10° (3)
	SLED-56HL1E	1.25			mW/cm ²	I _F = 50 mA, @ 10° (3)
λ _P	Peak Wavelength		940		nm	
λ _{BW}	Bandwidth		50		nm	
t _R , t _F	Rise time, Fall time		600		ns	I _F = 20 mA
V _F	Forward Voltage			1.8	V	I _F = 60 mA
V _{BR}	Reverse Breakdown Voltage	5.0	30		V	I _R = 10 μA
I _R	Reverse Current			10	μA	V = - 3.0 V
θ _{1/2}	Half Power Point		15		deg	(off center-line)

Specifications subject to change without notice

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