

Features

- High output at low current
- Very wide emission angle
- Multiple power ranges
- TO-46 base package

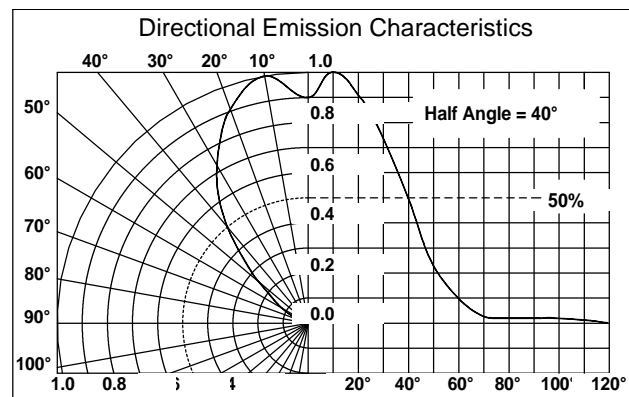
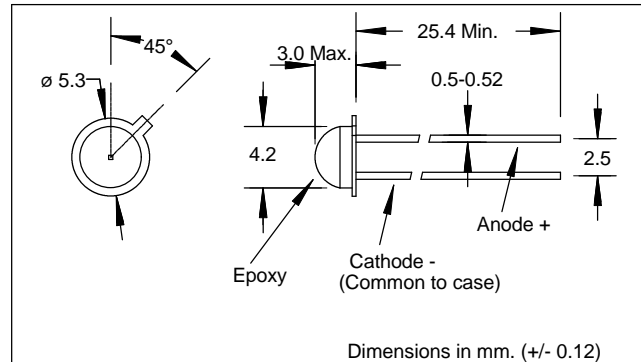
Description

This Silonex device is a high output Gallium Arsenide infrared emitting diode which produces a peak radiation at 940 nm when forward biased. It is packaged in a low profile clear epoxy dome for wide angle radiation emission.

Absolute Maximum Ratings

Storage Temperature	-40 to +85°C
Operating Temperature	-40 to +85°C
Soldering Temperature (1)	260°C
Average Forward Current	100 mA
Power Dissipation (2)	100 mW

- Notes: (1) >2mm from case for <5 sec.
 (2) derate 1.67 mW/°C above 25°C
 (3) This is the average radiant intensity on a 0.250" diameter surface at a distance of 0.5" from the lens side of the tab to the sensing surface, forming a 30° cone.



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

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
P _O	Output Power					
	SLED-56E1A		2.0		mW	I _F = 50 mA
	SLED-56E1B		3.0		mW	I _F = 50 mA
	SLED-56E1C		4.0		mW	I _F = 50 mA
	SLED-56E1D		5.0		mW	I _F = 50 mA
E _{e(APT)}	Aperture Radiant Intensity					
	SLED-56E1A	0.10			mW/cm ²	I _F = 50 mA, @ 30° (3)
	SLED-56E1B	0.50			mW/cm ²	I _F = 50 mA, @ 30° (3)
	SLED-56E1C	0.75			mW/cm ²	I _F = 50 mA, @ 30° (3)
	SLED-56E1D	1.00			mW/cm ²	I _F = 50 mA, @ 30° (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	30		V	I _R = 10 μA
I _R	Reverse Current			10	μA	V = - 3.0 V
θ _{1/2}	Half Power Point		40		deg	(off center-line)

Specifications subject to change without notice

103205 REV 1