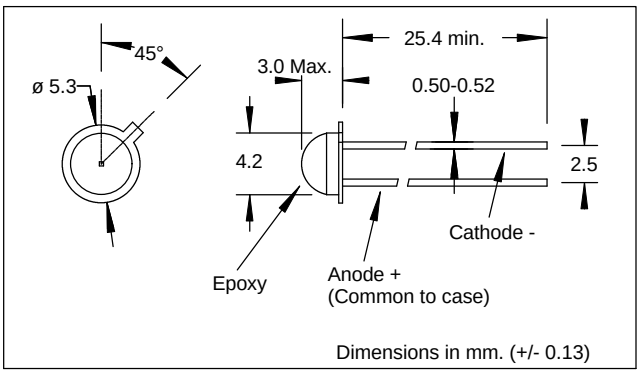
SLED-56E2

GaAlAs Infrared Emitting Diode

Features

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



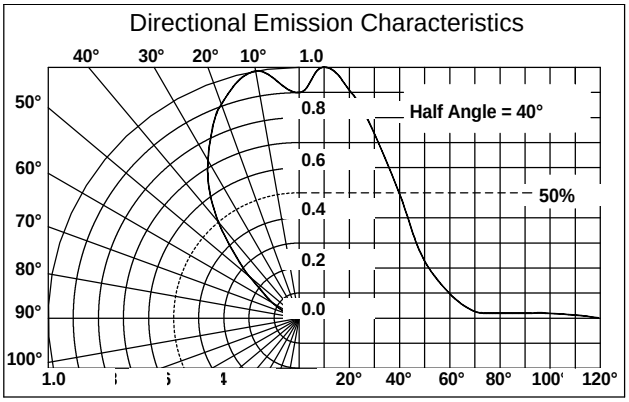
Description

This Silonex device is a high output Gallium Aluminum Arsenide infrared emitting diode which produces a peak radiation at 880 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)	150 mW

Notes: (1) >2mm from case for <5 sec.
(2) derate 2.5 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-56E2A		4		mW	I_F = 50 mA
	SLED-56E2B		6		mW	I_F = 50 mA
	SLED-56E2C		8		mW	I_F = 50 mA
	SLED-56E2D		10		mW	I_F = 50 mA
$Ee_{(APT)}$	Aperture Radiant Intensity					
	SLED-56E2A	0.75			mW/cm^2	I_F = 50 mA, @ 30° (3)
	SLED-56E2B	1.0			mW/cm^2	I_F = 50 mA, @ 30° (3)
	SLED-56E2C	1.5			mW/cm^2	I_F = 50 mA, @ 30° (3)
	SLED-56E2D	2.0			mW/cm^2	I_F = 50 mA, @ 30° (3)
λ_P	Peak Wavelength		880		nm	
λ_{BW}	Bandwidth		50		nm	
t_R, t_F	Rise Time, Fall Time		600		ns	I_F = 20 mA
V_F	Forward Voltage			1.6	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
$\theta_{1/2}$	Half Power Point		40		deg	(off center-line)

Specifications subject to change without notice

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