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ELD-850-394

- **INFRARED Light Emitting Diode**
- **850 nm, 18 mW**
- **Wide Viewing Angle (90°)**
- **3 mm epoxy package**

RoHS COMPLIANT Pb Pb-Free

Description

ELD-850-394 is an **InGaAS, DDH** infrared LED, typically emitting at 850 nm with an optical output power of 18 mW. It comes in a hermetically sealed clear 3 mm epoxy resin. ELD-850-394 is typically used for optical switches and fiber optical communications.

Maximum Rating (T_{CASE} = 25°C)

Parameter	Symbol	Values Min.	Values Max.	Unit
Power Dissipation, DC	P_D		190	mW
Forward Current	I_F		150	mA
Pulse Forward Current*	I_{FP}		1	A
Reverse Voltage	V_R	5		V
Operating Temperature	T_{OPR}	- 20	+ 80	°C
Storage Temperature	T_{STG}	- 30	+ 100	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C
Junction Temperature	T_J		100	°C

t_p = 10 µs, T = 10 ms

Electro-Optical Characteristics (T_{CASE} = 25°C, I_F = 50 mA)

Parameter	Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength	λ_P		**850**		**nm**
Spectral Bandwidth (FWHM)	$\Delta\lambda$		30		nm
Forward Voltage	V_F		1.5	1.9	V
Output Power	Θ_e		18		mW
Reverse Current	I_R			100	µA
Viewing Half Angle	$\Theta_{1/2}$		45		deg.

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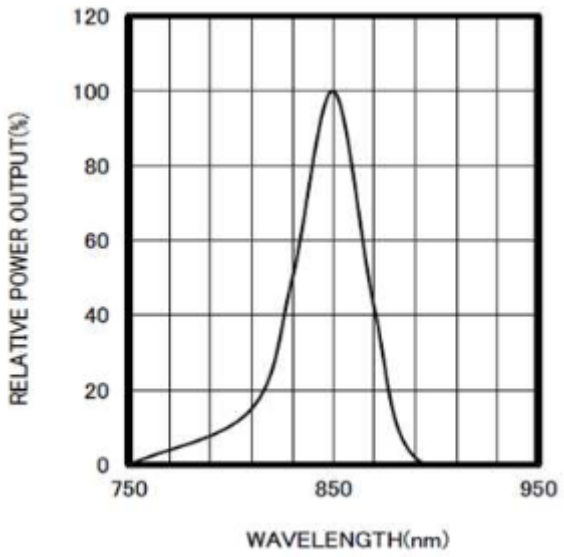
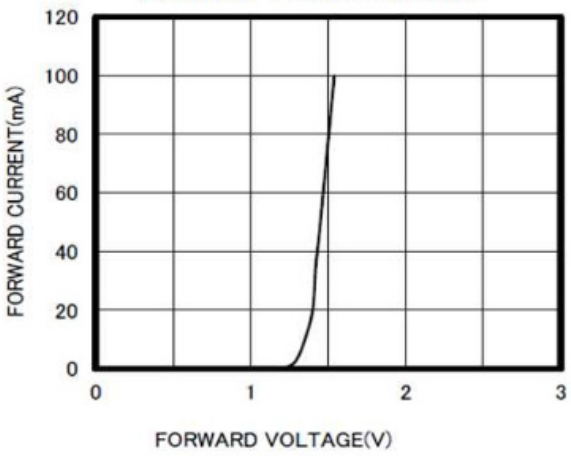
Performance Characteristics

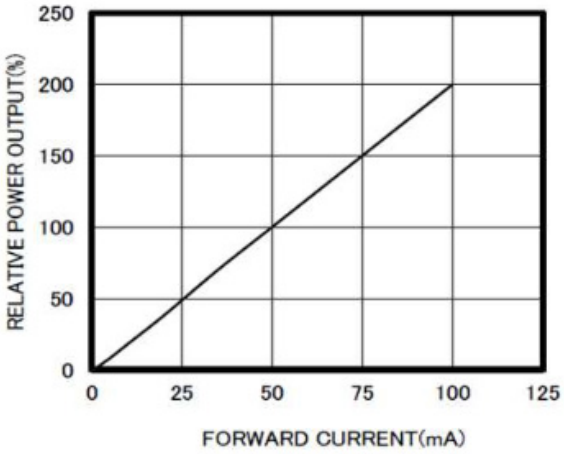
Relative Power vs. Wavelength



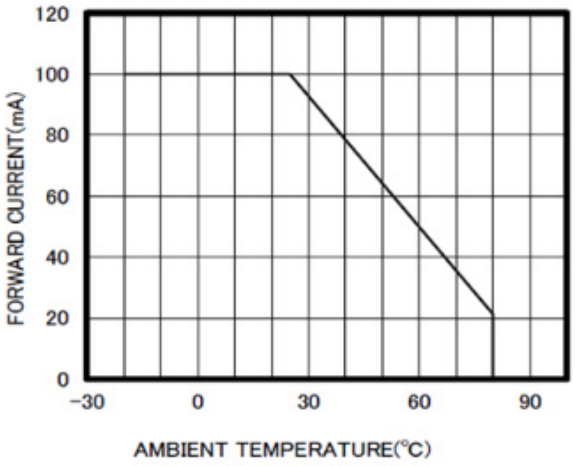
Forward Current vs. Forward Voltage



Relative Output Power vs. Forward Current



Forward Current vs. Ambient Temperature



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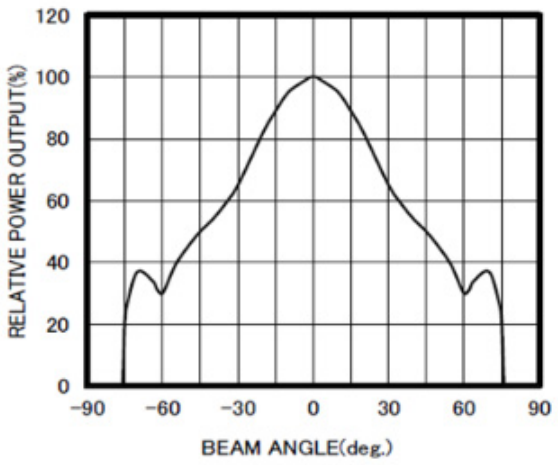
Performance Characteristics

Relative Output Power vs. Beam Angle



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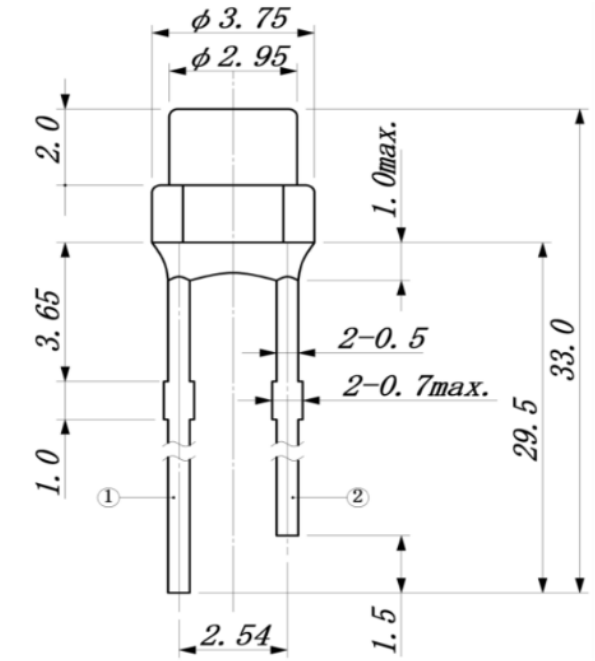
Outline Dimensions



All dimensions in mm