

LIGHT EMITTING DIODE

SE310

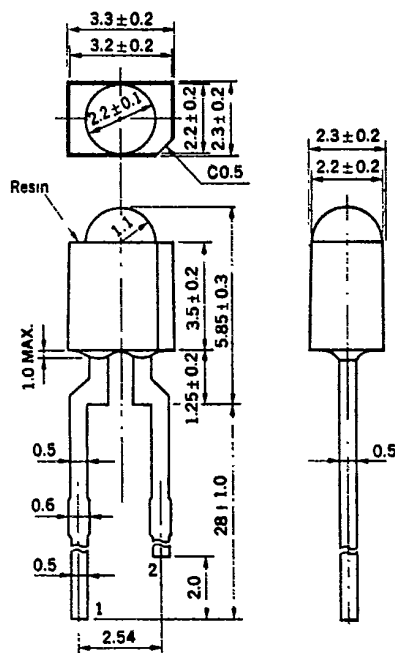
GaAs INFRARED EMITTING DIODE

DESCRIPTION

The SE310 is a GaAs (Gallium Arsenide) Infrared Emitting Diode which is mounted on the lead frames and molded in plastic. On forward bias, it emits a spectrally narrow band of radiation peaking at 940 nm. It is suitable for a optical switch with combination of the PH110

PACKAGE DIMENSIONS

in millimeters



FEATURES

- Small size plastic molded package.
- High output power.
- Long life.
- Good linearity.
- Spectrally matched to silicon sensors.

APPLICATIONS

- Light Source for Electro optical switches.
- Paper Tape and Punch Card Readers.
- Optical encoders.
- Photochoppers, Isolator.
- High speed Optoelectronic Data Links.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation ($T_a=25^\circ\text{C}$)

Maximum Forward Current ($T_a=25^\circ\text{C}$)

Maximum Reverse Voltage ($T_a=25^\circ\text{C}$)

Maximum Temperatures

Junction Temperature

Storage Temperature

P	100	mW
I_F	50	mA
V_R	5.0	V
T_j	100	$^\circ\text{C}$
T_{stg}	-40 to +100	$^\circ\text{C}$

ELECTRO-OPTICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Forward Voltage	V_F		1.1	1.4	V	$I_F=50\text{ mA}$
Reverse Current	I_R		0.01	5	μA	$V_R=5\text{ V}$
Peak Emission Wavelength	λ_{peak}		940		nm	$I_F=50\text{ mA}$
Spectral Line Half Width	$\Delta\lambda$		60		nm	$I_F=50\text{ mA}$
Output Power	I_e	6	11		mW/sr	$I_F=50\text{ mA}$
Light Turn-On and Turn-Off	$t_{\text{on}}, t_{\text{off}}$		1		μs	

SE310

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TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)