NEC
ELECTRON DEVICE

LIGHT EMITTING DIODE
SG232D

GaP FASHION LED
Green

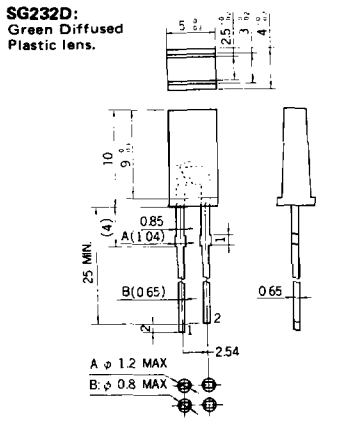
–NEPOC SERIES–

DESCRIPTION

The SG232D is a full resin-molded LED lamp and has a rectangular flat face which emits brilliant green light uniformly. It is especially suitable for such electronic equipments as for audio uses which require some fancy looking displays.

PACKAGE DIMENSIONS
in millimeters

SG232D:
Green Diffused
Plastic lens.



1. Anode
2. Cathode

FEATURES

- Rectangular flat face type
- Low cost.
- Long lead.
- Bright green.
- Compatible with Integrated Circuits.
- Red (SR632D) and amber (SY432D) LED's are available in the same pkg.

APPLICATIONS

- Visual displays.
- Peak level indicator.
- Radio, Stereo equipment readout.
- Measuring instrument, terminal.

ABSOLUTE MAXIMUM RATINGS

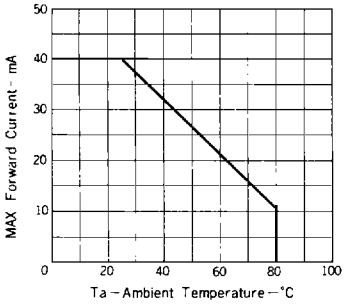
Maximum Power Dissipation (Ta=25 °C)	P	100	mW
Maximum Forward Current (Ta=25 °C)	I_F	40	mA
Maximum Reverse Voltage (Ta=25 °C)	V_R	5	V
Maximum Temperatures			
Junction Temperature	T_j	100	°C
Storage Temperature	T_{stg}	–40 to +100	°C

ELECTRO-OPTICAL CHARACTERISTICS (Ta = 25 °C)

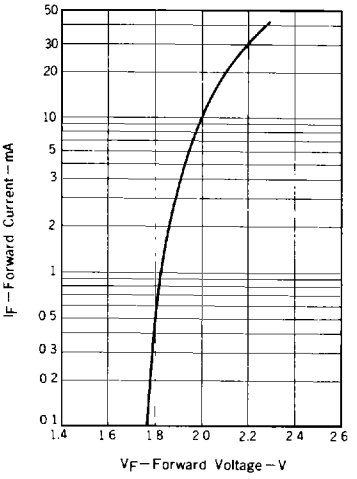
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Forward Voltage	V_F		2.0	2.5	V	I_F = 10 mA
Reverse Current	I_R		0.01	10	μA	V_R = 4.5 V
Capacitance	C_t		100		pF	V = 0, f = 1.0 MHz
Peak Emission Wavelength	λpeak		565		nm	I_F = 10 mA
Spectral Line Half Width	Δλ		40		nm	I_F = 10 mA
Luminous Intensity	I_V	0.2	0.5		mcd	I_F = 10 mA

TYPICAL CHARACTERISTICS (Ta = 25 °C)

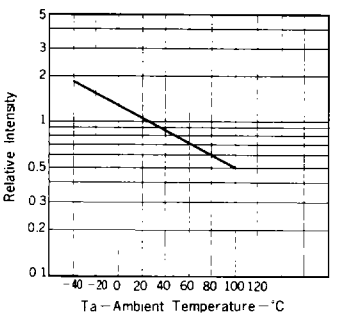
MAX. FORWARD CURRENT vs. AMBIENT TEMPERATURE



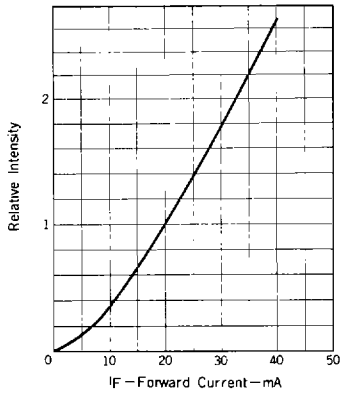
FORWARD CURRENT vs. FORWARD VOLTAGE



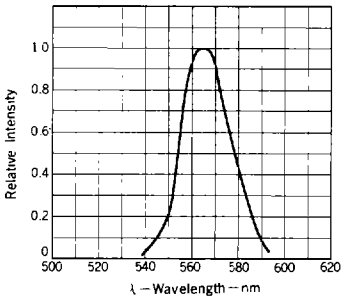
RELATIVE INTENSITY vs. AMBIENT TEMPERATURE



RELATIVE INTENSITY vs. FORWARD CURRENT



SPECTRAL DISTRIBUTION



HANDLING PRECAUTIONS:

1. The full resin-molded LED lamps have generally a little less mechanical and thermal strength than other resin-molded semiconductor devices as they have less additives. Therefore please note on the following points.
   (a) Soldering of leads should be made at the point 5 mm or more from the root of the leads at 260 °C and within 5 s.
   (b) If the temperature of the molded portion rises in addition to the residual stress between the leads, the possibility that open or short circuit occurs due to the deformation or destruction of the resin will increase.

2. On cleaning the device:
   (a) Cleaning with unsuitable solvent may impair the resin of the package and the following solvents should be used at the temperature of less than 45 °C and for less than 3 minutes of immersion time.
   Freon TE, Freon TF, Ethanol, Methanol
   Difron-solvent, Isopropyl-alcohol
   (b) Ultrasonic cleaning will add some stress on devices. The degree of the stress differs depending on the oscillation output power, the size of the PCB and the mounting methods of the devices, therefore it should be confirmed by making an experiment at actual conditions that the cleaning does not have any problem on the devices.

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