

## EP8506 Series GaAs Infrared Emitting Diode, Side-emitting Plastic Package

The SEP8506 is a gallium arsenide infrared emitting diode molded in a side-emitting red plastic package. The chip is positioned to emit radiation through a plastic lens from the side of the package.

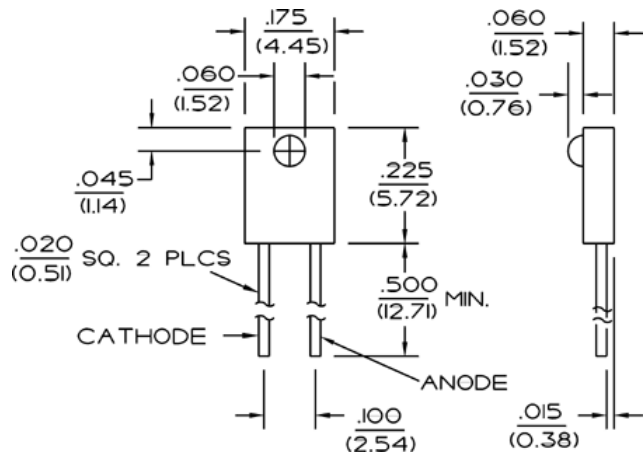
### Features

- Side-emitting plastic package
- 50 ° (nominal) beam angle
- 935 nm wavelength
- Mechanically and spectrally matched to SDP8406 phototransistor, SDP8106 photodarlington and SDP8000/8600 series Schmitt trigger

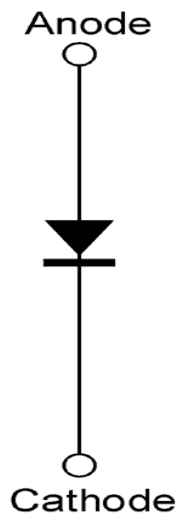
### Product Specifications

Series Name	SEP8506
Product Type	IR Component
Power Output	0.45 - 0.90 mW/cm <sup>2</sup>
Beam Angle (Degree)	50
Package Type	Side-Emitting
Package Components	Plastic
Forward Current	20 mA
Continuous Forward Current	50 mA
Forward Voltage	1.5 V
Reverse Breakdown Voltage	3 V
Output Wavelength	935 nm
Spectral Bandwidth	50 nm
Spectral Shift With Temperature	0.3 nm/°C
Rise and Fall Time	0.7 μs
Power Dissipation	100 mW
Operating Temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Availability	Global

## Dimensions



## Schematic



# SEP8506

## GaAs Infrared Emitting Diode

Fig. 1 Radiant Intensity vs Angular Displacement

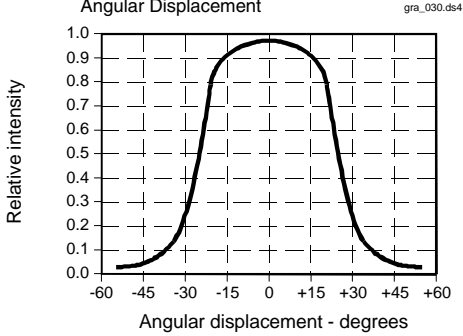


Fig. 2 Radiant Intensity vs Forward Current

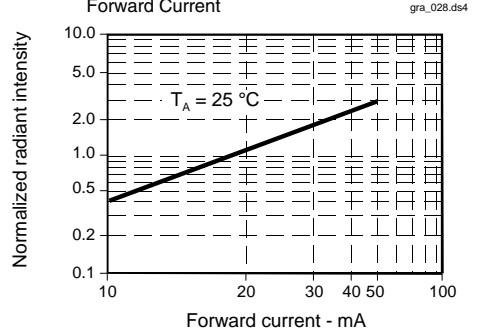


Fig. 3 Forward Voltage vs Forward Current

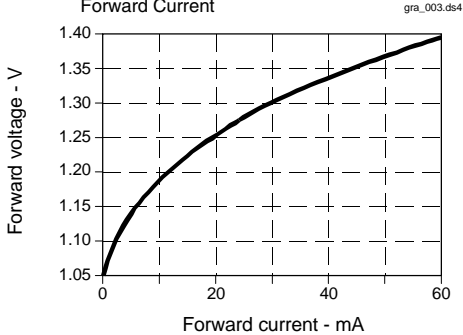


Fig. 4 Forward Voltage vs Temperature

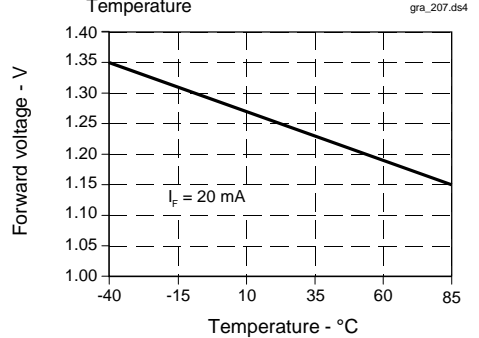


Fig. 5 Spectral Bandwidth

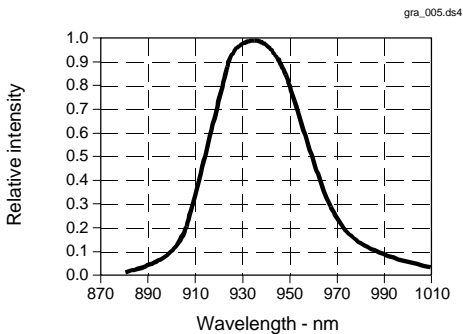
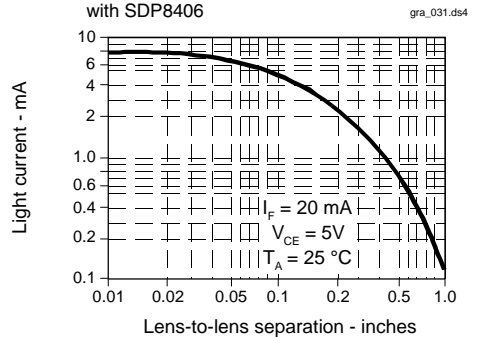


Fig. 6 Coupling Characteristics with SDP8406

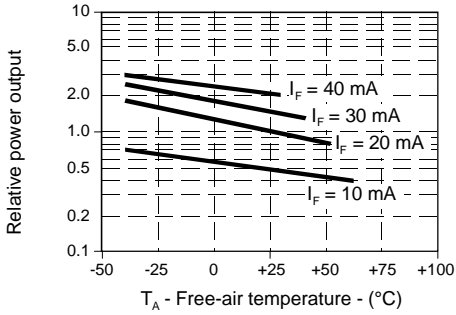


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Fig. 7 Relative Power Output vs Free Air Temperature

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All Performance Curves Show Typical Values