

# L200CWIR851

## Infrared

5mm, Flanged Cylindrical, 8.6mm Height  
16° viewing angle

DWG BY:  
BL/ GP  
08-28-06

CHK BY:  
PL  
11-01-07

QA:  
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\_\_-\_\_-\_\_

MFG:  
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REVISION LTR: -

11-01-07

# END-LOOK PACKAGE LIGHT EMITTING DIODE

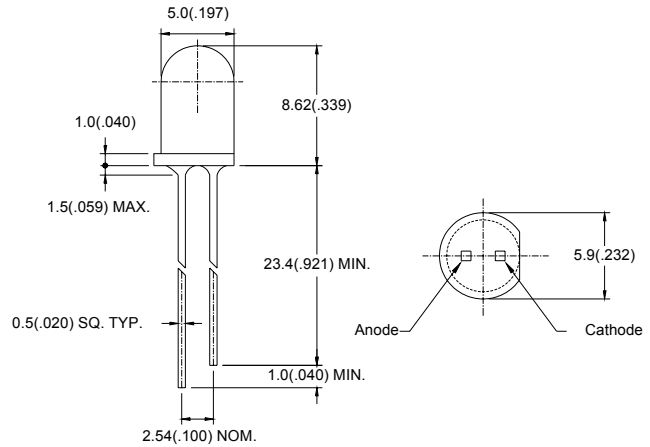
● **Features:**

1. High radiant power and high radiant intensity.
2. Standard T-1 3/4(5mm)package.
3. Peak wavelength  $\lambda_p=850\text{nm}$ .
4. Good spectral matching to si-photodetector.
5. Radiant angle:  $20^\circ$
6. Lens Appearance: Water Clear.
7. This product is RoHS compliant.

● **Applications:**

1. Remote Control.
2. Automatic Control System.

● **Package Dimensions:**



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (0.01') unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

● **Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	100	mW
Continuous Forward Current	I <sub>F</sub>	100	mA
Peak Forward Current <sup>*1</sup>	I <sub>FP</sub>	1.0	A
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-45°C ~85°C	-
Storage Temperature	Tstg	-45°C ~100°C	-
Soldering Temperature	Tsol	260°C (for 5 seconds)	-

<sup>\*1</sup> Condition for is I<sub>FP</sub> pulse of 1/10 duty and 0.1 msec width.

● **Optical- Electrical Characteristics (@T<sub>A</sub>=25°C)**

Parameter	Symbol	Test Conditions	Min	TYP	Max	Unit
Radiant Intensity	I <sub>e</sub>	I <sub>F</sub> =50mA	45.3	95	-	mW/sr
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA	-	1.6	1.8	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	μA
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	840	846	853	nm
Spectral Line Half- Width	Δλ	I <sub>F</sub> =20mA	-	42	-	nm
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	16	-	deg

● **Typical Optical-Electrical Characteristic Curves**

Fig.1 Spectral Distribution

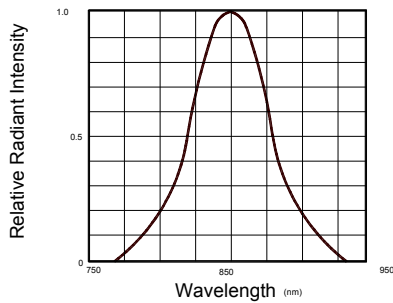


Fig.2 Forward Current Vs Ambient Temperature

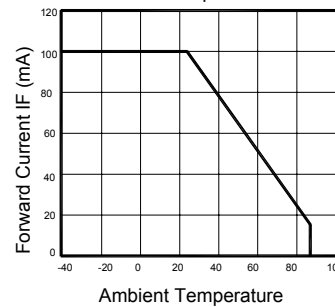


Fig.3 Forward Current Vs Forward Voltage

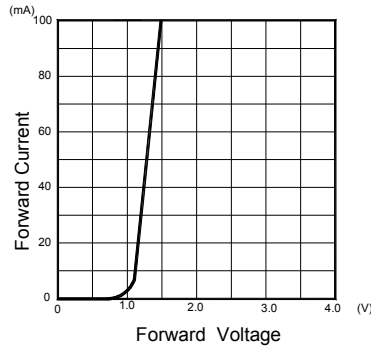


Fig.4 Relative Radiant Intensity Vs Ambient Temperature

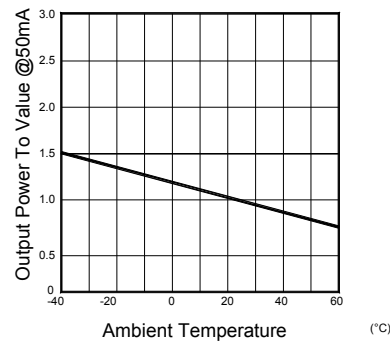


Fig.5 Relative Radiant Intensity Vs Forward Current

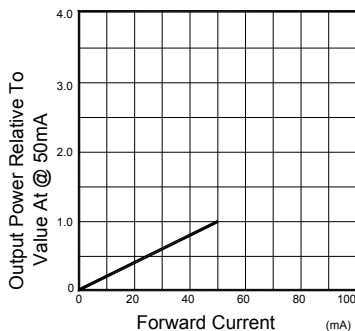


Fig.6 Radiation Diagram

