



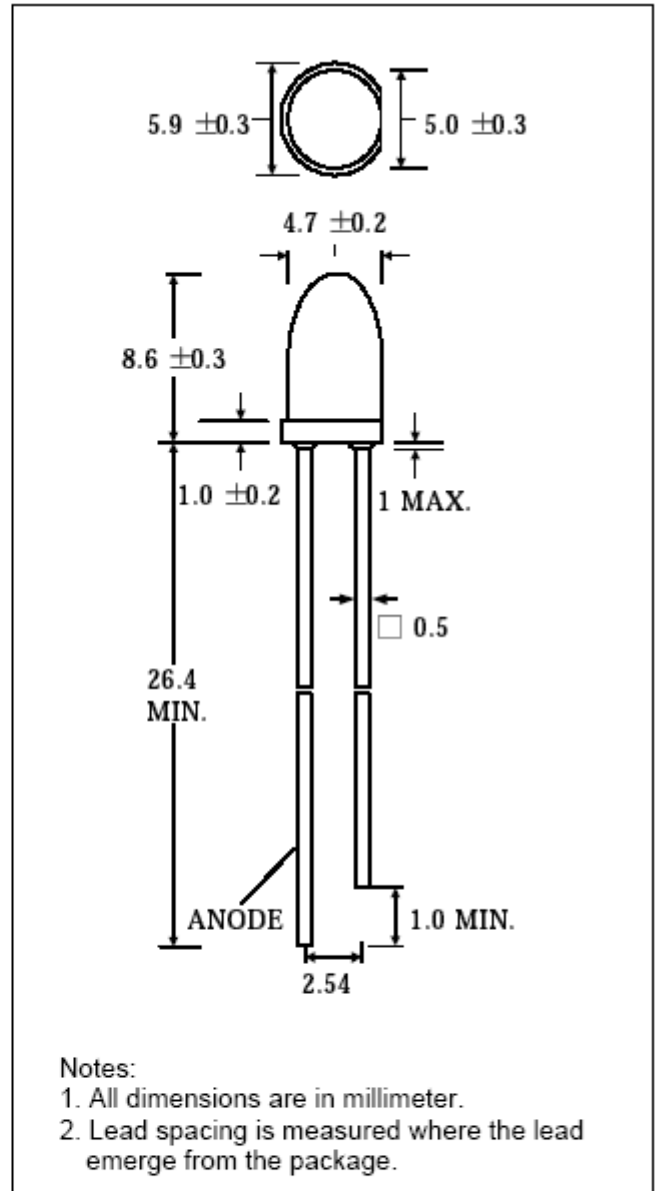
B5B-850-8

DESCRIPTION

- Round type
- T1-3/4 (5mm) diameter
- Lens color: Water Clear
- With Flange
- Solder leads without stand-off
- Compliant with RoHS

FEATURES

- Emitted color: Infrared
- Technology: GaAlAs
- Peak wavelength $\lambda_p = 850\text{nm}$
- Viewing angle: 8°



SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
GaAlAs	Infrared	Water Clear	8°



ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	MAX. RATING	Unit
Power Dissipation	P_D	180	mW
Peak Forward Current (1/10 Duty Cycle @1KHz)	I_{FP}	1	A
Continuous Forward Current	I_F	100	mA
Reverse Voltage	V_R	5.0	V
Operating Temperature Range	T_{OPR}	-40~+85	°C
Storage Temperature Range	T_{STG}	-40~+85	°C

Solder temperature 1.6 mm from body for 3 seconds at 260°C

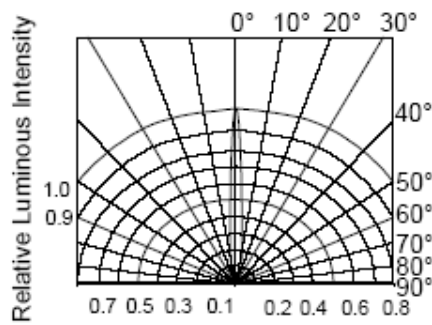
OPTICAL-ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Radiated Output Power	P_O	$I_F = 50\text{mA}$	100	150	-	mW/sr
Forward Voltage	V_F	$I_F = 50\text{mA}$	-	1.5	1.8	V
Reverse Current	I_R	$V_R = 5\text{V}$	-	-	100	uA
Viewing Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	8	-	deg.
Peak Wavelength	λ_P	$I_F = 20\text{mA}$	-	850	-	nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	30	-	nm
Rise / Fall Time	t_r / t_f	$I_F = 50\text{mA}$	-	25/15	35/35	ns

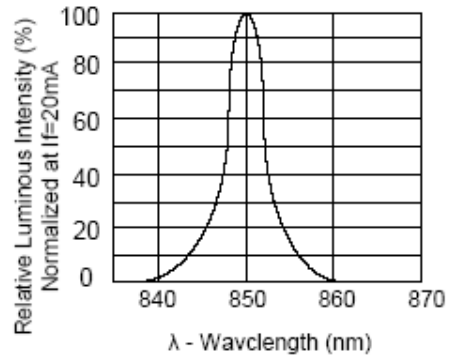
*Tolerance of Viewing Angle: -10 / +5 deg. RADIANT



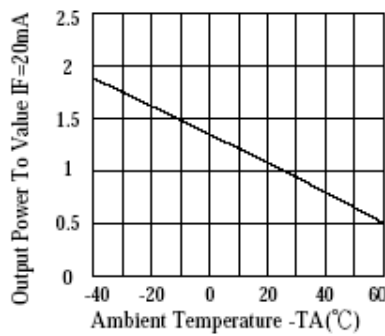
TYPICAL OPTICAL-ELECTRICAL CHARACTERISTIC CURVES



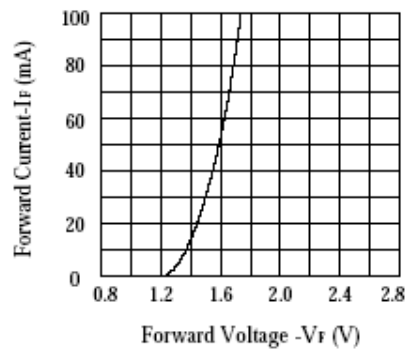
RADIATION DIAGRAM



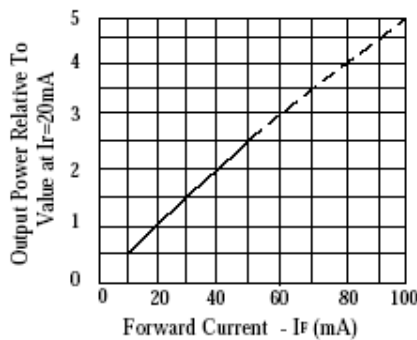
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



RELATIVE RADIANT INTENSITY Vs. FORWARD CURRENT