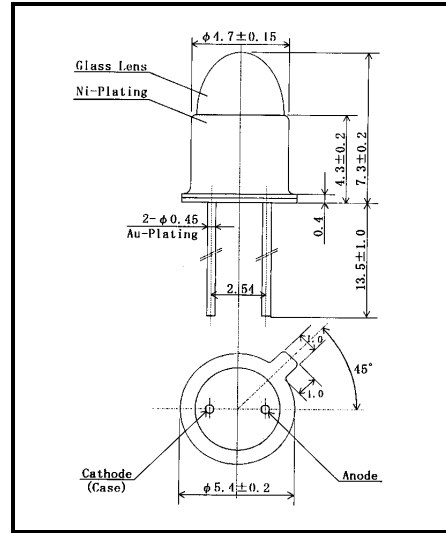


LS858B

Point Source LED



Dimensions (Unit:mm)

- FEATURES**
- High-output Power
 - Parallel Rays (Super Excellent)
 - Narrow Beam (Super Excellent)
 - Point-source LED
 - Small Temp. Coefficient of PO
- APPLICATIONS**
- Optical Switches
 - Linear & Rotary Encoder

2. ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25°C)

ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	2.0	3.3		mW
Forward Voltage	VF	IF=50mA		1.7	2.2	V
Reverse Current	IR	VR=5V			10	μA
Peak Wavelength	λp	IF=50mA	820	850		nm
Spectral Line Half Width	Δλ	IF=50mA		45		nm
Half Intensity Beam Angle	θ	IF=50mA		±2.5		deg.
Cut-Off Frequency	fc	IFP=50mA+20mA _{p-p}		20		MHz
Temp. Coefficient of PO	P/T	IF=10mA		-0.05		%/°C
Temp. Coefficient of VF	V/T	IF=10mA		-2		mV/°C

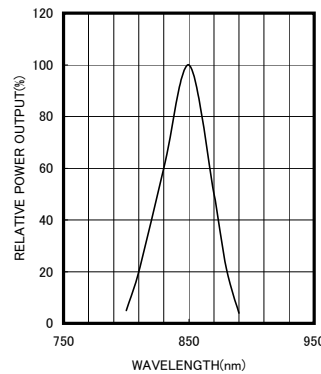
1. ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

ITEM	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	0.8	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temp.	Topt	-30 TO 100	°C
Storage Temp.	Tstg	-40 TO 125	°C
Junction Temp.	Tj	125	°C
Lead Soldering Temp.*2	Tls	260	°C

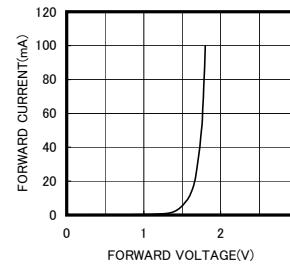
*1: Tw=10μs, T=10mS

*2: Time 5 Sec max, Position: Up to 3mm from the body

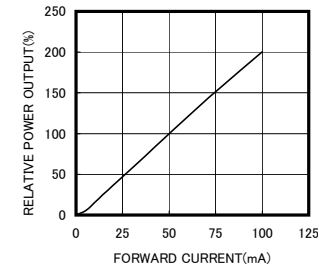
SPECTRAL OUTPUT



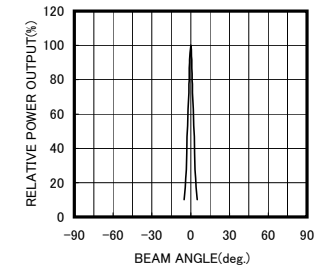
FORWARD I-V CHARACTERISTICS



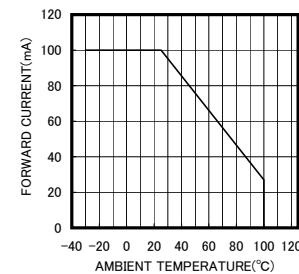
RELATIVE POWER vs FORWARD CURRENT



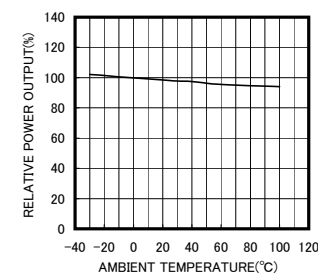
RADIATION PATTERN



THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE IF=10mA



FORWARD VOLTAGE vs TEMPERATURE IF=10mA

