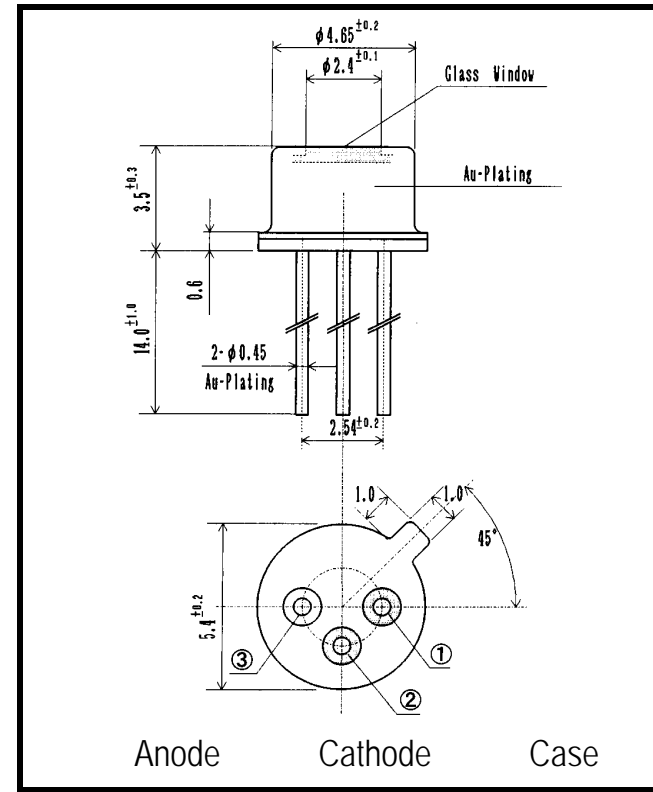


# LSB884TS5-550G

# Point Source LED



- FEATURES**
- Point-source LED
  - Emitting Window Dia. 50  $\mu$  m
  - High-output Power
  - Spot Beam
- APPLICATIONS**
- Linear & Rotary Encoder (Measuring System)
  - Edge Sensing (Coin Dispenser)
  - Optical Communications

## 1. ABSOLUTE MAXIMUM RATINGS (Ta=25 )

ITEM	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	80	mA
Forward Current (Pulse)*1	IFP	0.4	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	150	mW
Operating Temp.	Topr	-30 TO 100	
Storage Temp.	Tstg	-40 TO 125	
Junction Temp.	Tj	125	
Lead Soldering Temp.*2	Tls	260	

\*1:Tw=10uS,T=10mS

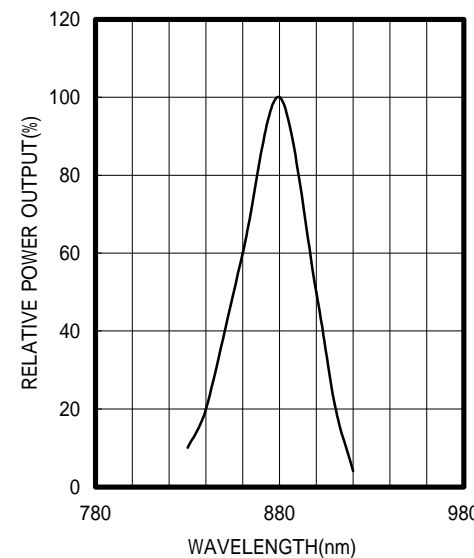
\*2:Time 5 Sec max,Position:Up to 3mm from the body

## 2. ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25 )

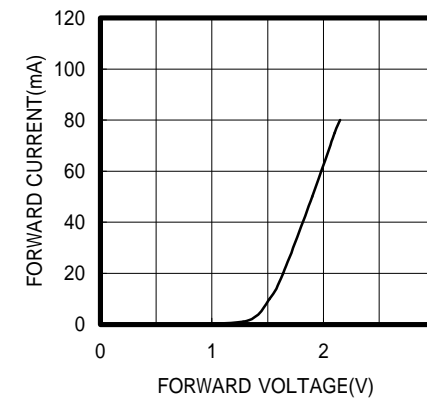
ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	2.5	3.5		mW
Forward Voltage	VF	IF=50mA		1.9	2.4	V
Reverse Current	IR	VR=5V			10	$\mu$ A
Peak Wavelength	$\lambda$	IF=50mA	850	880		nm
Spectral Line Half Width		IF=50mA		40		nm
Half Intensity Beam Angle		IF=50mA		$\pm 6$		deg.
Band Width	fc	IF=50mA+20mA p-p		20		MHz
Junction Capacitance	Cj	1MHz , V=0V		40		pF
Temp. Coefficient of PO	P/T	IF=10mA		-0.05		%/
Temp. Coefficient of VF	V/T	IF=10mA		-2.3		mV/
Fiber-Coupled-Power*1	Pf	IF=50mA		600		$\mu$ W

\*1 200/230 NA=0.4

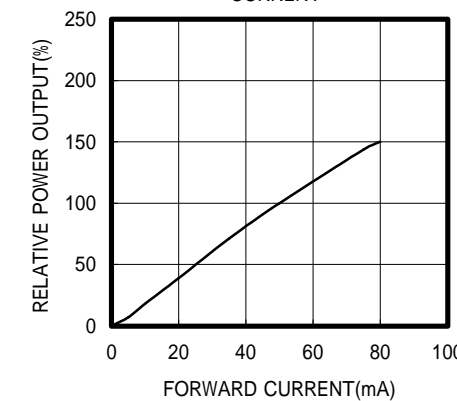
SPECTRAL OUTPUT



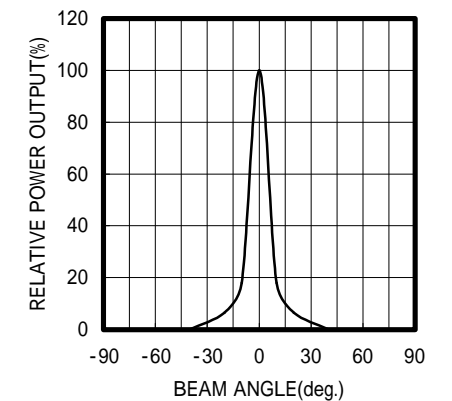
FORWARD I-V CHARACTERISTICS



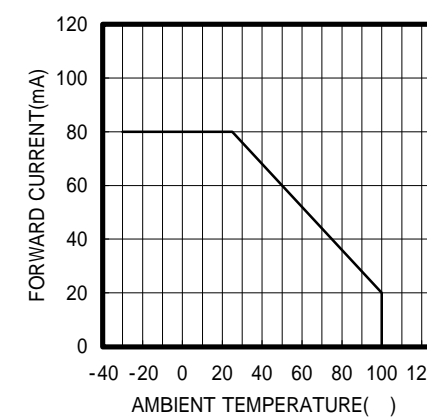
RELATIVE POWER vs FORWARD CURRENT



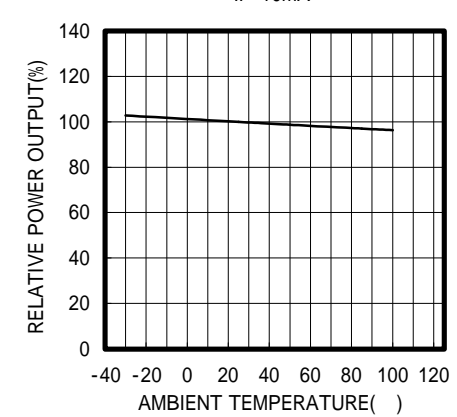
RADIATION PATTERN



THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE IF=10mA



FORWARD VOLTAGE vs TEMPERATURE IF=10mA

