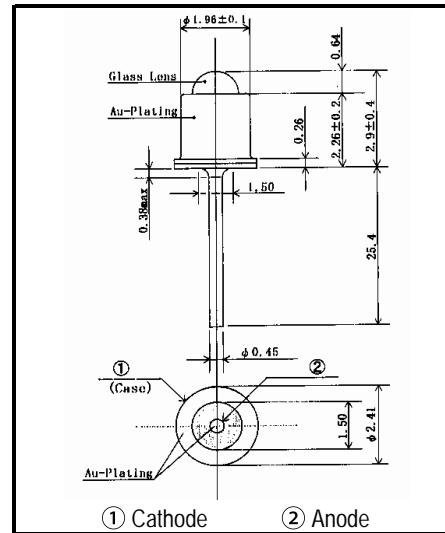


LS880PT

Infrared Emitting Diode



① Cathode ② Anode
Dimensions (Unit:mm)

- FEATURES**
- High-output Power
 - Narrow Beam Angle (Excellent)
 - Compact (\varnothing 2mm)
 - High Reliability in Demanding Environments
- APPLICATIONS**
- Optical Switches
 - Edge Sensing (Coin Dispenser)

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

ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA		2.5		mW
Forward Voltage	VF	IF=50mA		1.45	1.8	V
Reverse Current	IR	VR=5V			10	μ A
Peak Wavelength	λ_p	IF=50mA		880		nm
Spectral Line Half Width	$\Delta \lambda$	IF=50mA		60		nm
Half Intensity Beam Angle	θ	IF=50mA		± 4		deg.
Rise Time	Tr	IFP=50mA		1.5		μ S
Fall Time	Tf	IFP=50mA		0.8		μ S
Junction Capacitance	Cj	1MHz, V=0V		15		pF
Temp. Coefficient of PO	P/T	IF=10mA		-0.5		%/°C
Temp. Coefficient of VF	V/T	IF=10mA		-1.5		mV/°C

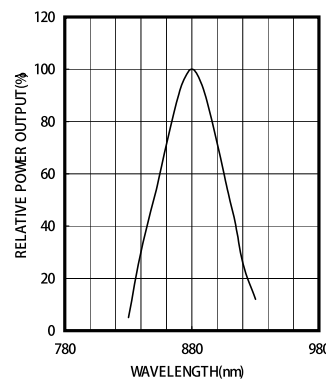
1. ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

ITEM	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	75	mA
Forward Current (Pulse)*1	IFP	0.5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	120	mW
Operating Temp.	Topr	-20 TO 85	°C
Storage Temp.	Tstg	-30 TO 100	°C
Junction Temp.	Tj	100	°C
Lead Soldering Temp.*2	Tls	260	°C

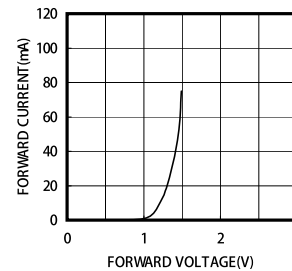
*1: Tw=10 μ s, T=10mS

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

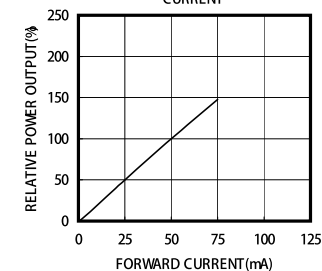
SPECTRAL OUTPUT



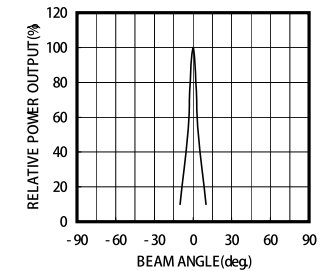
FORWARD I-V CHARACTERISTICS



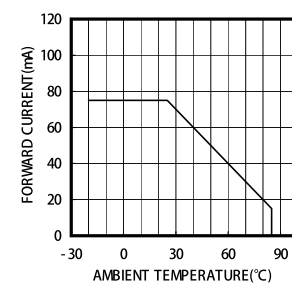
RELATIVE POWER vs FORWARD CURRENT



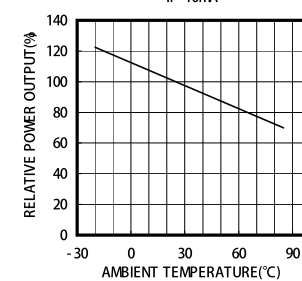
RADIATION PATTERN



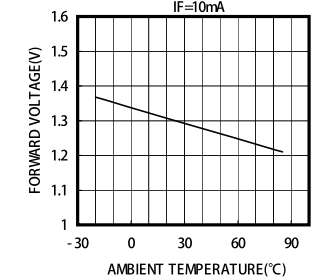
THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE
IF=10mA



FORWARD VOLTAGE vs TEMPERATURE
IF=10mA



OPTRANS

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2005/6/27 LS880PT