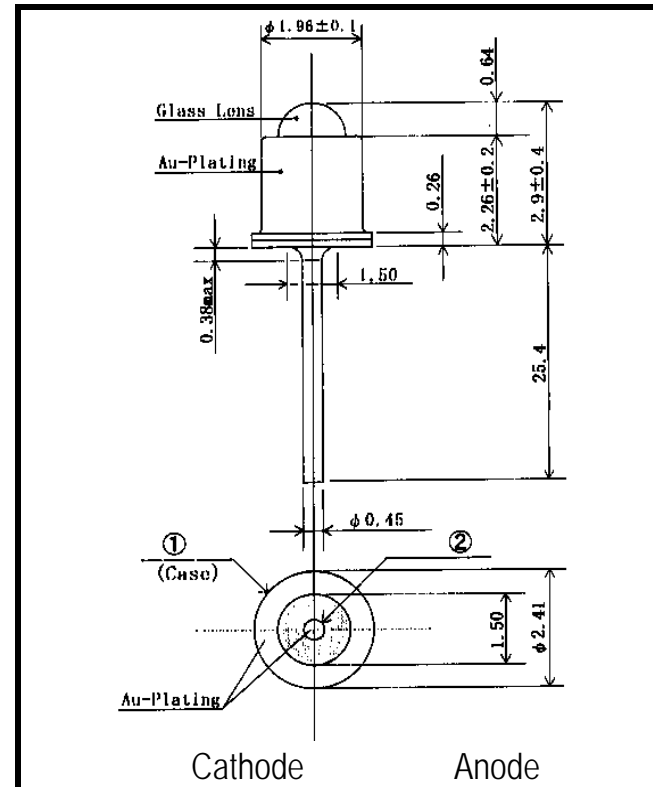


# LS880PT

# Infrared Emitting Diode



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

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

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	$\mu$ A
Peak Wavelength	$\lambda$	IF=50mA		880		nm
Spectral Line Half Width		IF=50mA		60		nm
Half Intensity Beam Angle		IF=50mA		$\pm 4$		deg.
Rise Time	Tr	IFP=50mA		1.5		$\mu$ S
Fall Time	Tf	IFP=50mA		0.8		$\mu$ S
Junction Capacitance	Cj	1MHz, V=0V		15		pF
Temp. Coefficient of PO	P/T	IF=10mA		-0.5		%/
Temp. Coefficient of VF	V/T	IF=10mA		-1.5		mV/

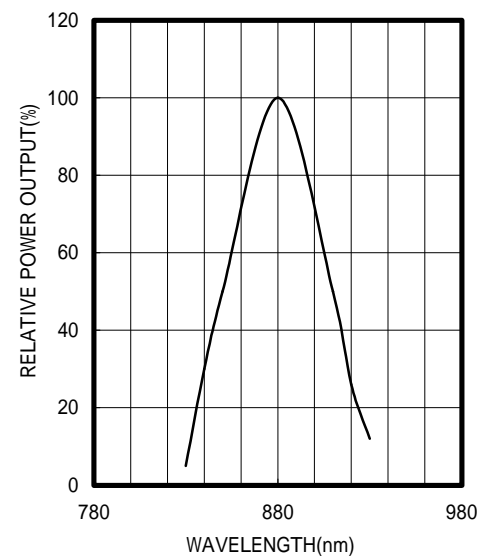
## 1. ABSOLUTE MAXIMUM RATINGS (Ta=25 )

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	
Storage Temp.	Tstg	-30 TO 100	
Junction Temp.	Tj	100	
Lead Soldering Temp.*2	Tls	260	

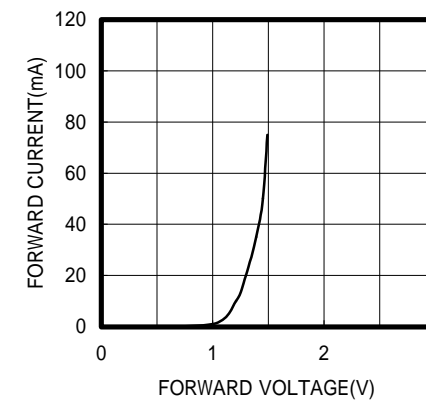
\*1:Tw=10uS,T=10mS

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

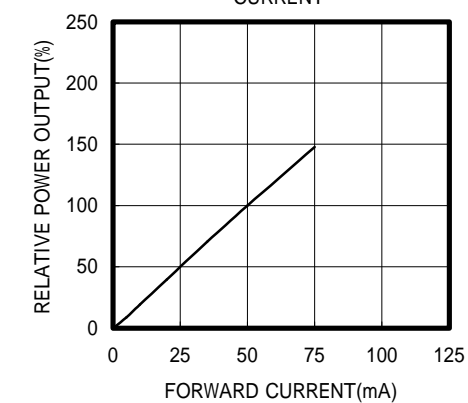
SPECTRAL OUTPUT



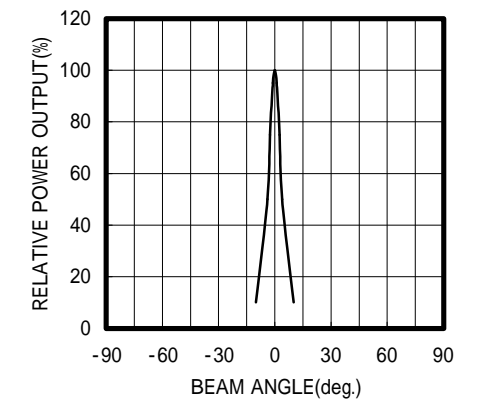
FORWARD I-V CHARACTERISTICS



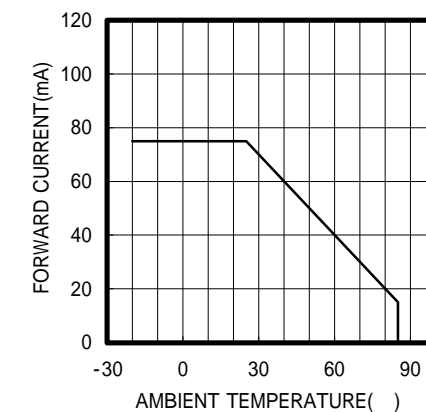
RELATIVE POWER vs FORWARD CURRENT



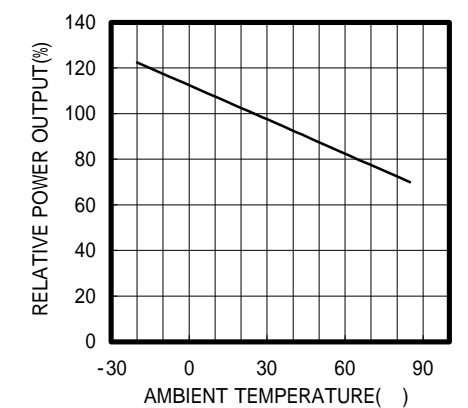
RADIATION PATTERN



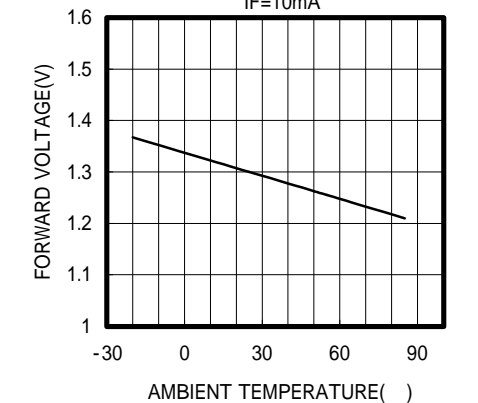
THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE IF=10mA



FORWARD VOLTAGE vs TEMPERATURE IF=10mA



OPTRANS

2-6-11 MASUKATA,TAMA-KU, KAWASAKI 214-0032.JAPAN  
 TEL.81(44)932-6491 / FAX.81(44)932-8281  
 E-mail optrans@mb.kcom.ne.jp