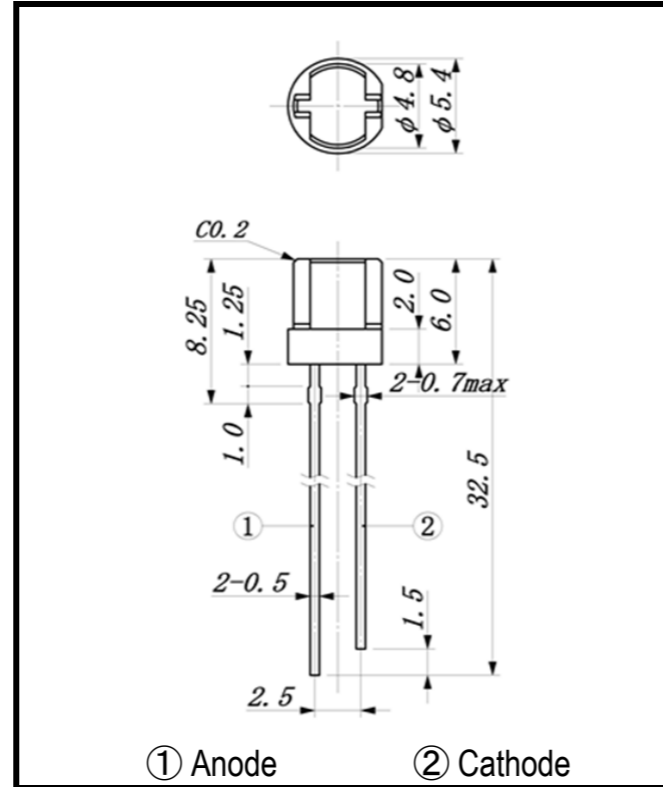


LSF872N3

Infrared Emitting Diode



- FEATURES**
- High-output Power
 - High Reliability
- APPLICATIONS**
- Optical Switches
 - Bar-code Reader

2. ELECTRICAL & OPTICAL CHARACTERISTICS+L21

ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA		17.5		mW
Forward Voltage	VF	IF=50mA		1.55	2.0	V
Reverse Current	IR	VR=5V			100	μ A
Peak Wavelength	λ_p	IF=50mA		870		nm
Spectral Line Half Width	$\Delta \lambda$	IF=50mA		45		nm
Half Intensity Beam Angle	θ	IF=50mA		± 45		deg.

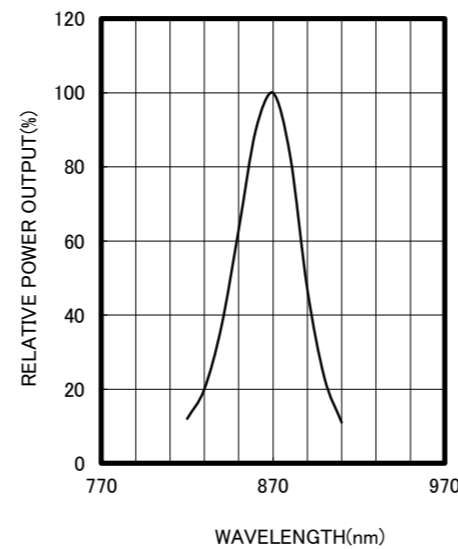
1. ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

ITEM	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	1	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temp.	Topr	-20 TO 80	°C
Storage Temp.	Tstg	-30 TO 100	°C
Junction Temp.	Tj	100	°C
Lead Soldering Temp.*2	Tls	260	°C

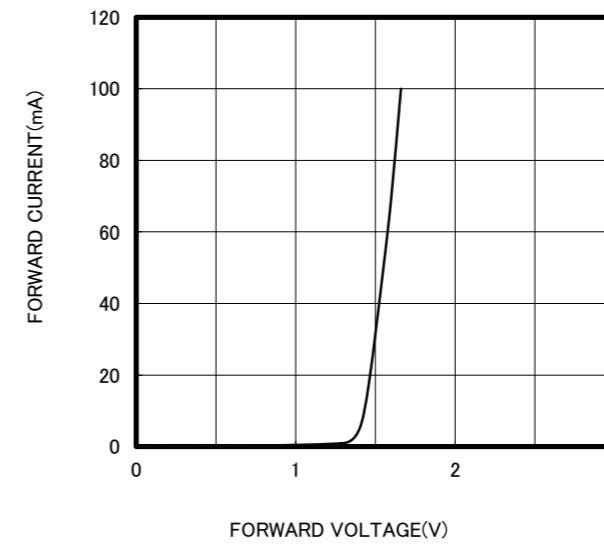
*1:Tw=10uS,T=10mS

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

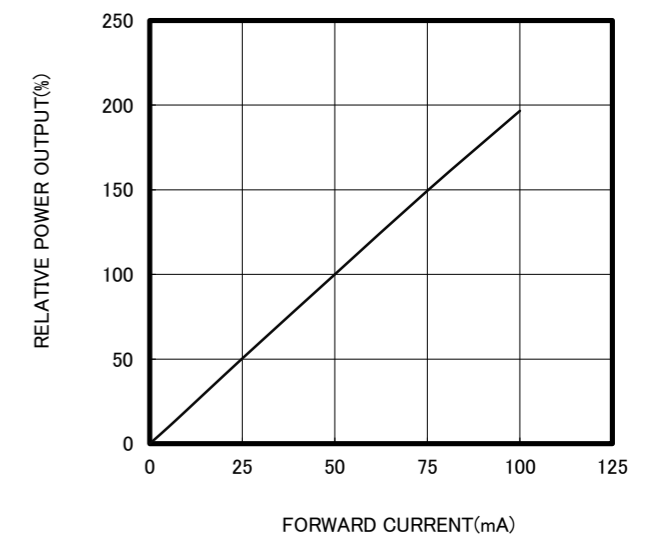
SPECTRAL OUTPUT



FORWARD I-V CHARACTERISTICS



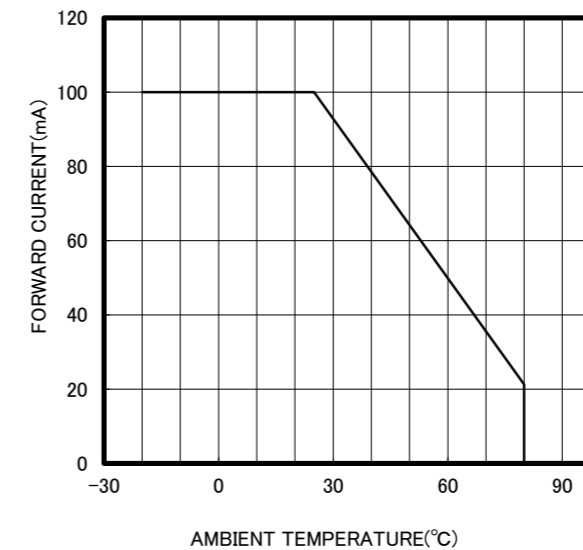
RELATIVE POWER vs FORWARD CURRENT



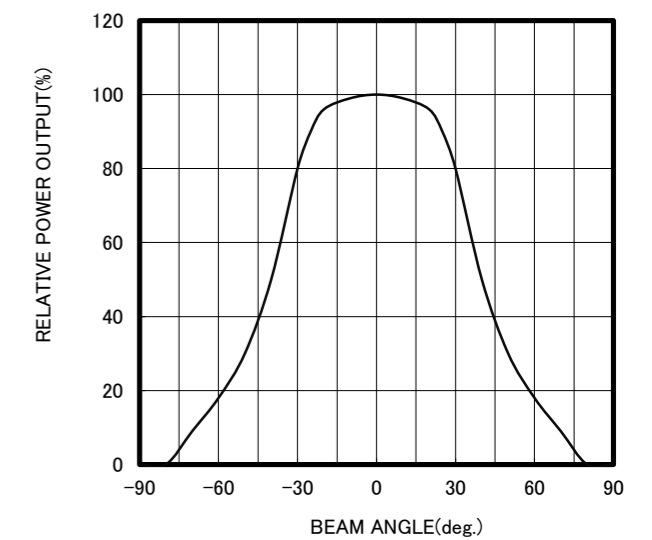
FORWARD VOLTAGE(V)

FORWARD CURRENT(mA)

THERMAL DERATING CURVE



RADIATION PATTERN



AMBIENT TEMPERATURE(°C)

BEAM ANGLE(deg.)

OPTRANS

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