

Peak Emission Wavelength: 650nm

The 650nm Point Source Series is designed for applications requiring high accuracy and precision. Custom package solutions and sorting are available.

FEATURES

- > 3.5×2.2×1.24 Flat Top Ceramic SMT
- > Emitting Window Diameter Φ 150 μ m
- > High Reliability / High Output Power

APPLICATIONS

- > Optical Sensing / Optical Instruments
- > Linear & Rotary Encoder
- > Machine Vision / CCD
- > Optical Switches



Absolute Maximum Ratings (Ta=25°C)

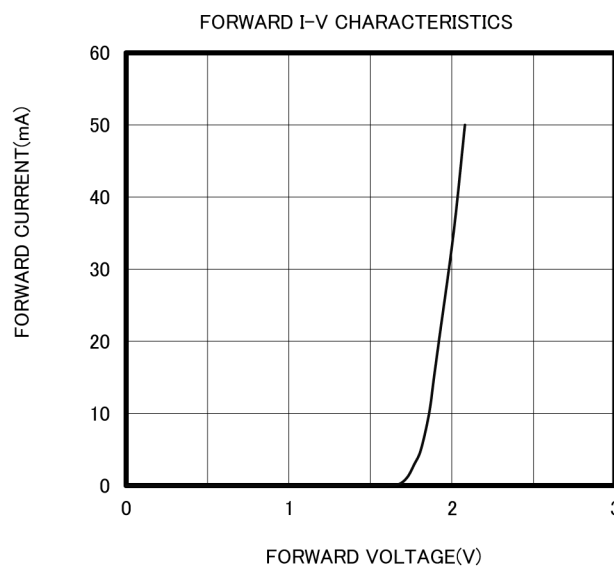
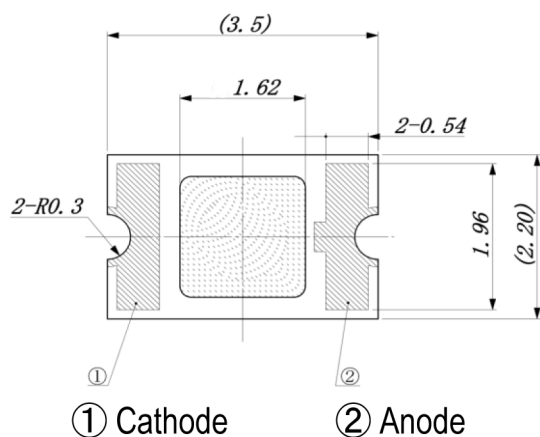
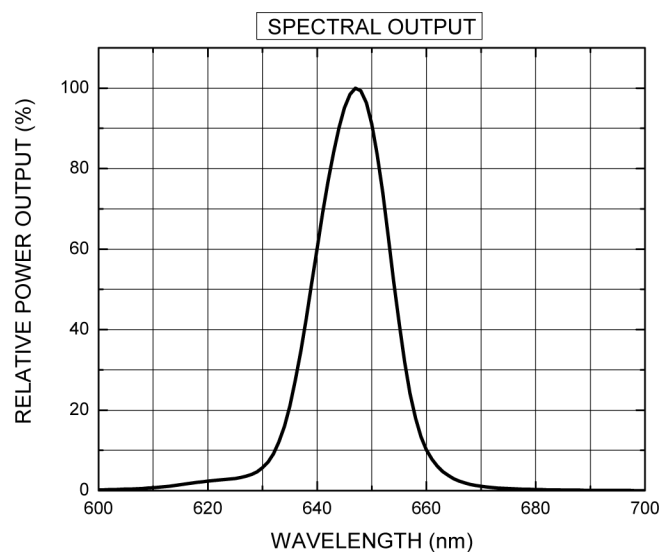
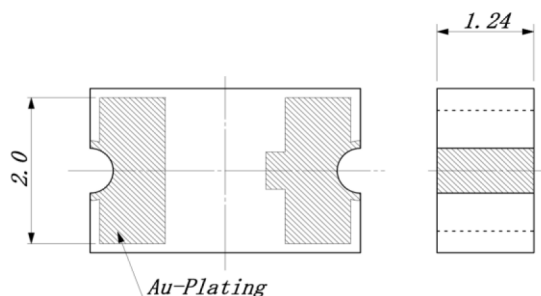


ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	50	mA
Forward Current (Pulse)*1	IFP	0.3	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	120	mW
Operating Temperature Range	Topr	-20 ~ +80	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C

*1: Tw=10 μ sec, T=10msec.

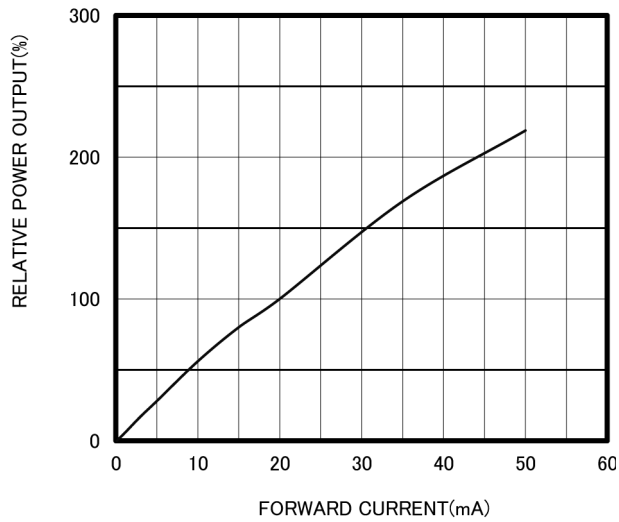
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	--	1.6	--	mW
Forward Voltage	VF	IF=20mA	--	1.9	2.4	V
Reverse Current	IR	VR=5V	--	--	100	μ A
Peak Emission Wavelength	λ_p	IF=20mA	--	650	--	nm
Spectral Line Half Width	$\Delta\lambda$	IF=20mA	--	15	--	nm
Half Intensity Beam Angle	Θ	IF=20mA	--	± 45	--	deg

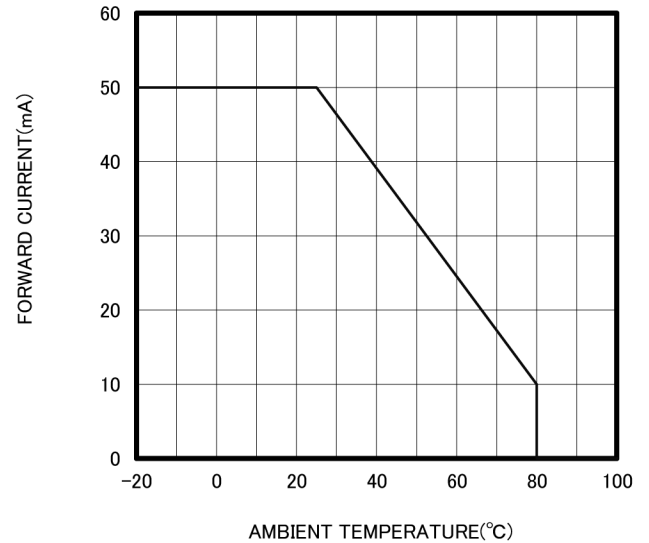


Unit: mm

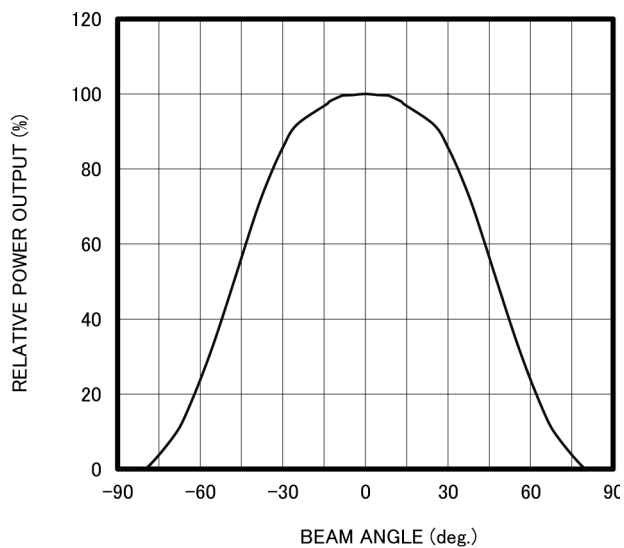
RELATIVE POWER vs FORWARD CURRENT



THERMAL DERATING CURVE



RADIATION PATTERN



Soldering Conditions:

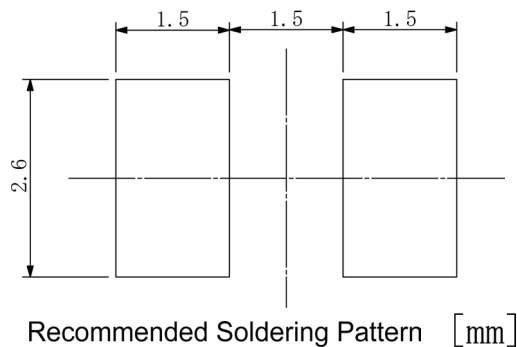
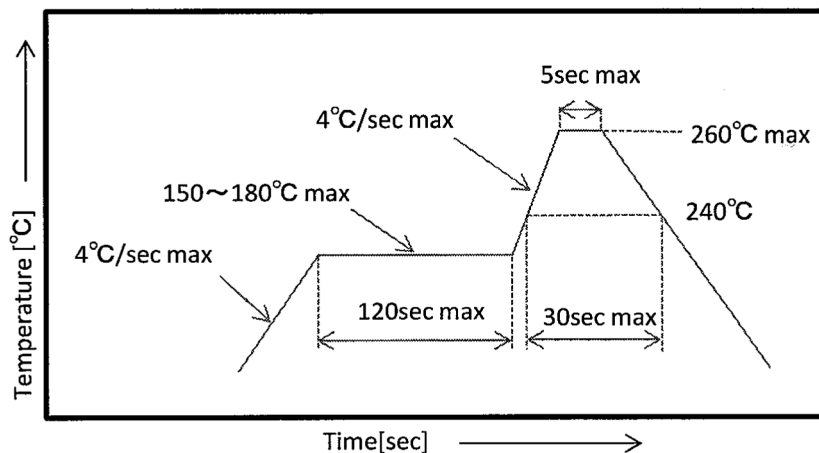
(1) Reflow Soldering

- Please implement the following temperature profile.
- Please do not handle the product until it has returned to ambient temperature.

(2) Hand Soldering

- Soldering tip temperature must be under 320°C.
- Soldering must be done within 3 seconds each.
- When soldering, do not add pressure to the resin portion.
- Please do not handle the product until it has returned to ambient temperature.

Reflow Soldering Temperature-Profile [Pb free Soldering] (Recommend condition)



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