

Peak Emission Wavelength: 650nm

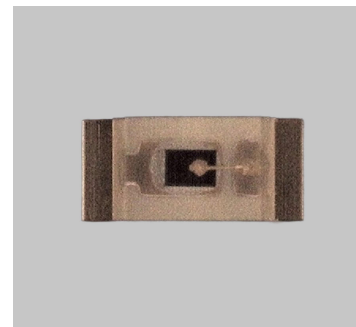
The 650nm emitter is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.

FEATURES

- > 1.6 x 0.8 x 0.78 Transfer-molded SMT Package
- > High Reliability
- > High Output Power
- > Wide Beam Angle

APPLICATIONS

- > Light Source For Emitters
- > Industrial Equipment
- > Machine Vision
- > Optical Encoders



Absolute Maximum Ratings (Ta=25°C)



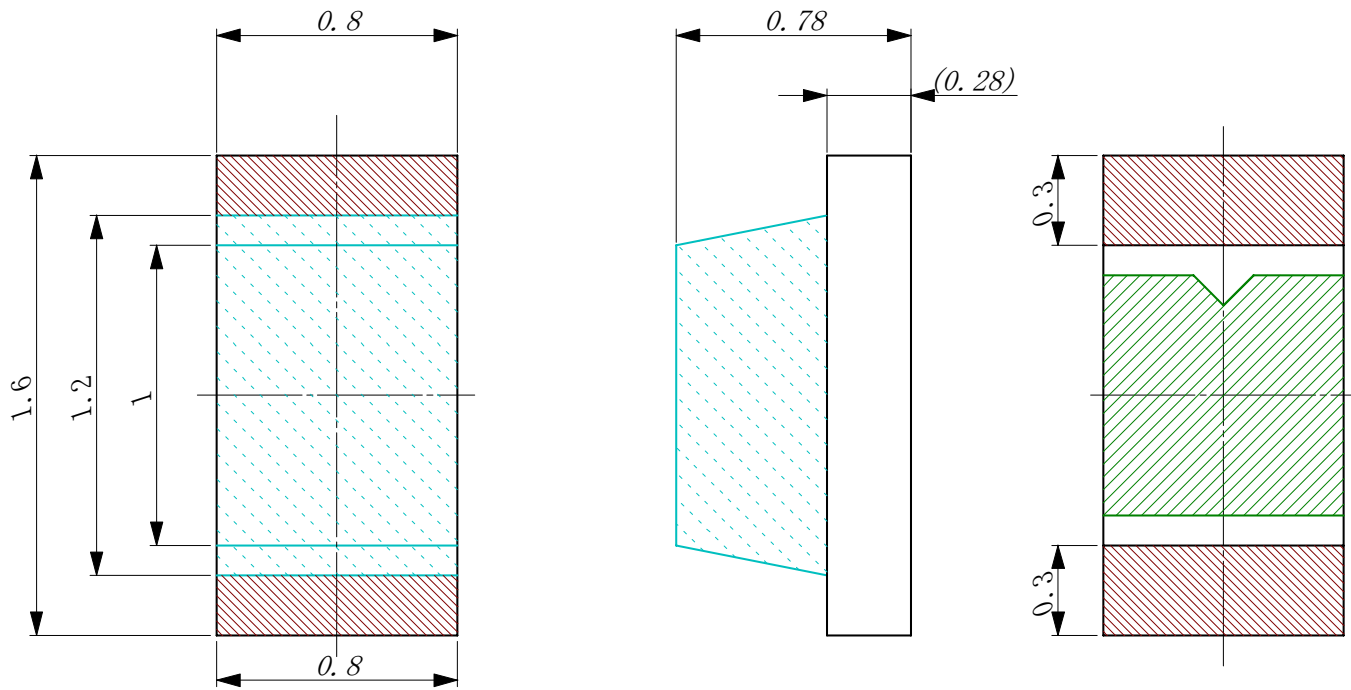
ITEMS	SYMBOL	RATINGS	UNIT
Forward Current	IF	50	mA
Forward Current (Pulse)*1	IFP	0.5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	120	mW
Operating Temperature Range	Topr	-20 ~ +80	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C
Junction Temperature	Tj	100	°C

*1: Tw=10μsec, T=10msec.

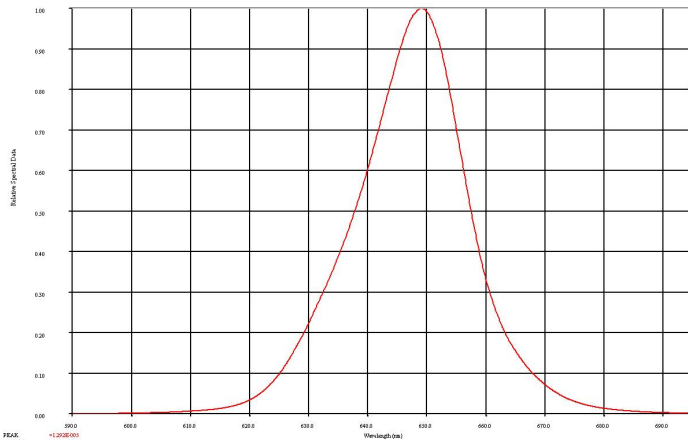
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	--	2.4	--	mW
Forward Voltage	VF	IF=20mA	--	1.96	--	V
Power Output	PO	IF=50mA	--	5.0	--	mW
Forward Voltage	VF	IF=50mA	--	2.10	--	V
Reverse Current	IR	VR=5V	--	--	100	μA
Peak Emission Wavelength	λp	IF=50mA	--	650	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	24	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	±60	--	deg

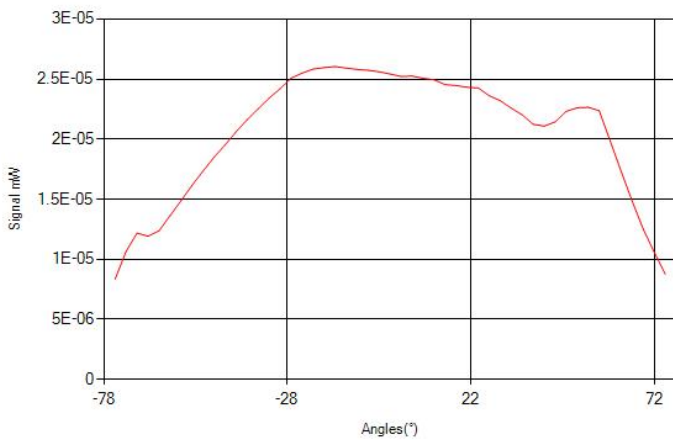
Package Drawing



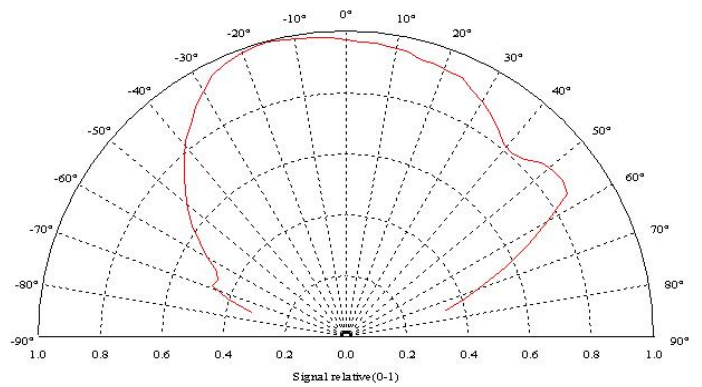
SPECTRAL RESPONSE



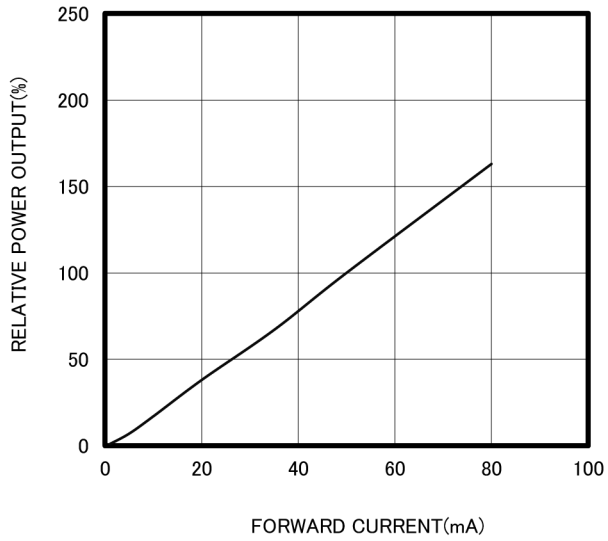
RADIATION DISTRIBUTION



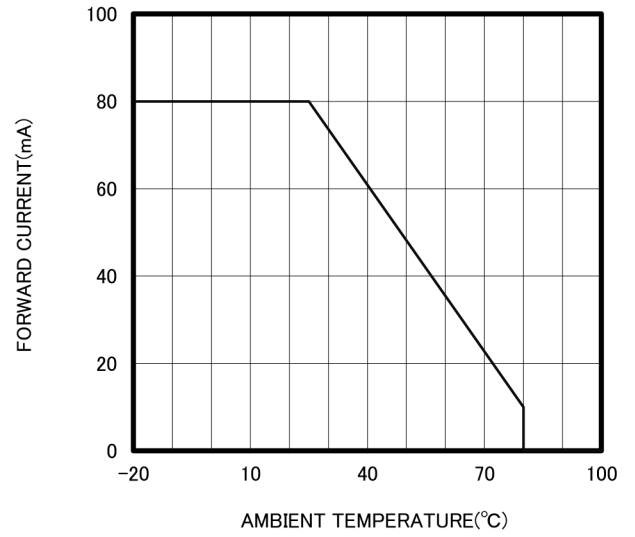
VIEW ANGLE



RELATIVE POWER vs FORWARD CURRENT



THERMAL DERATING CURVE



The information contained herein is subject to change without notice.

2026-02-02