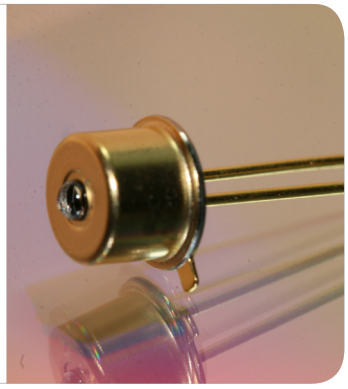
Marktech Optoelectronics

Parallel Beam Point Source Emitter

Product No: **MTPS2085BSL**

Peak Emission Wavelength: 850nm

The 850nm infrared point source emitter is designed for applications requiring parallel beam angle, high accurary and precision. Custom package solutions and sorting are available.



FEATURES

> High Power Output
> Emitting Window Diameter of 50μm
> Double Lens: Ball Lens & Focusing Lens
> High Reliability

APPLICATIONS

> Fiber Optics
> Linear & Rotary Encoder
> Optical Communications
> Fiber Optics

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	80	mA
Forward Current (Pulse)*1	IFP	0.4	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	160	mW
Operating Temperature Range	Topr	-30 ~ +100	°C
Storage Temperature Range	Tstg	-40 ~ +125	°C
Junction Temperature	Tj	100	°C
Lead Soldering Temperature*2	Tls	260	°C

*1: Tw=10μsec, T=10msec; *2: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	0.6	1.0	--	mW
Forward Voltage	VF	IF=50mA	--	1.9	2.5	V
Reverse Current	IR	VR=5V	--	--	10	μA
Peak Emission Wavelength	λp	IF=50mA	--	850	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	30	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	±15	--	deg
Cut-off Frequency	fc	*1	--	45	--	MHz

*1: IF=50mA+20mAp-p.

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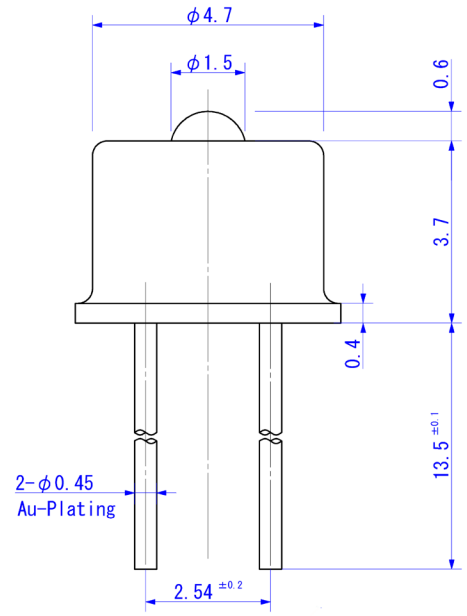
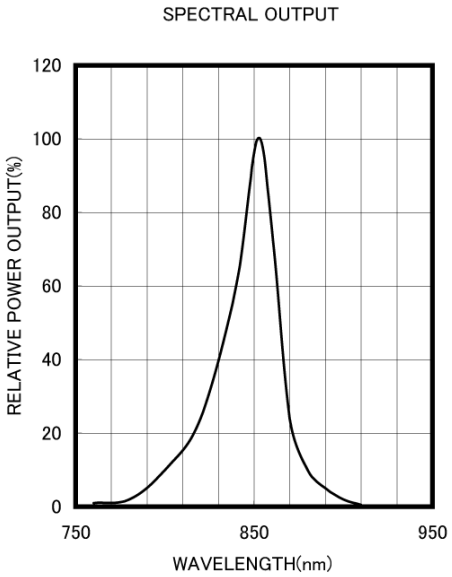
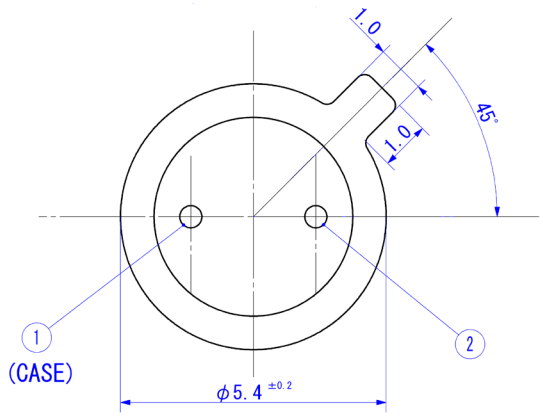
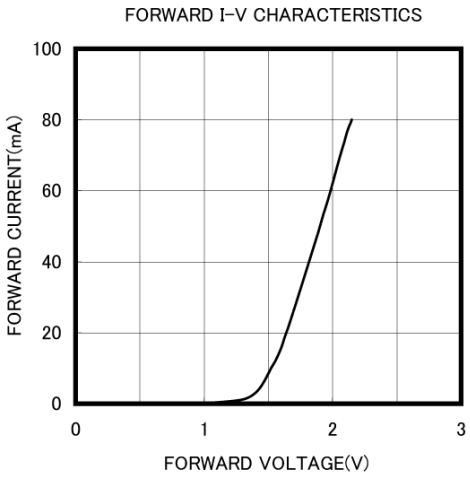






①. Cathode
②. Anode



Unit: mm, Tolerance: ±0.2

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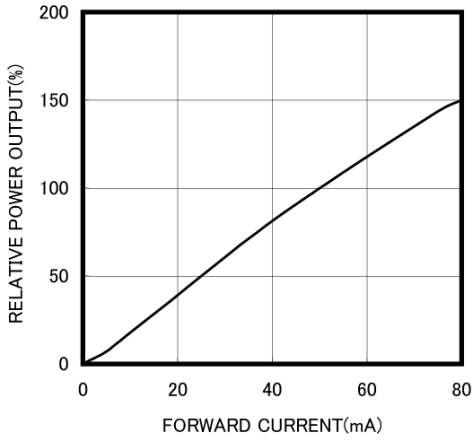
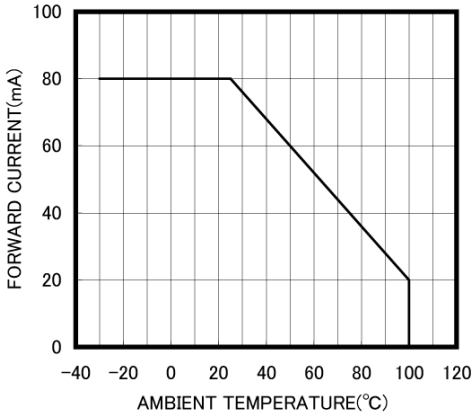
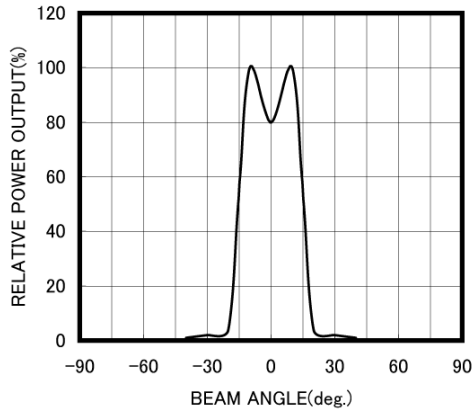
RELATIVE POWER vs FORWARD CURRENT



THERMAL DERATING CURVE



RADIATION PATTERN



The information contained herein is subject to change without notice.

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