Marktech Optoelectronics

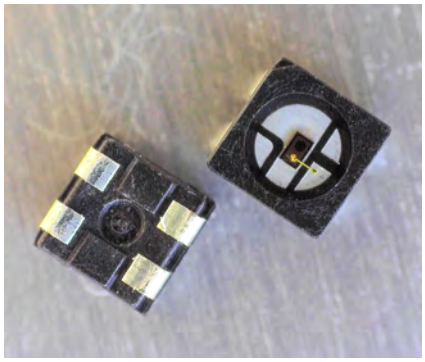
Preliminary

Infrared Point Source Emitter

Product No: **MTPS8085MT4S**

Peak Sensitivity Wavelength: 855nm

The 855nm Point Source Series is designed for applications requiring high output and precise optical / mechanical axis alignment. It is packaged in a 2.1mm square SMD black package with clear encapsulation.



FEATURES

> 2.1mm square SMD package
> Emitting Window Dia. 150um
> Wide Beam Angle

APPLICATIONS

> Optical Switches / Security Systems
> Linear & Rotary Encoder
> Remote Controls / Robotics

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current	IF	60	mA
Forward Current (Pulse)*1	IFP	400	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	110	mW
Operating Temperature Range	Topr	-20 ~ +80	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C
Lead Soldering Temperature	Tls	260	°C

*1: Tw<10usec T=10mS

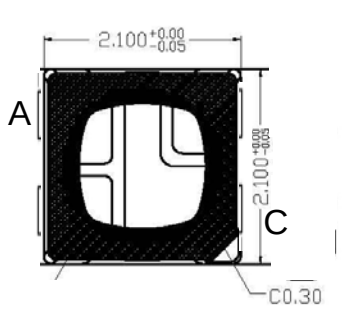
Electrical & Optical Characteristics (Ta = 25°C)

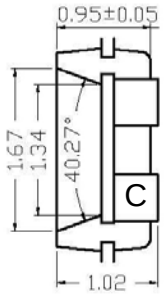
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	--	3.5	--	mW
Forward Voltage	VF	IF=50mA	--	1.60	2.2	V
Reverse Current	IR	VR=5V	--	--	100	µA
Peak Emission Wavelength	λp	IF=50mA	--	855	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	30	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	+/-60	--	deg

Note: Care is required during assembly and when handling the component so as to not damage the surface of the LED. This may affect the appearance and optical performance.

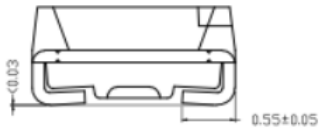
2021-05-04

Top Side

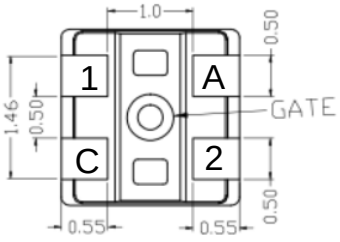




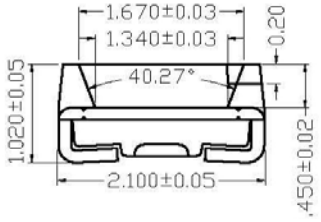
C - Cathode A - Anode



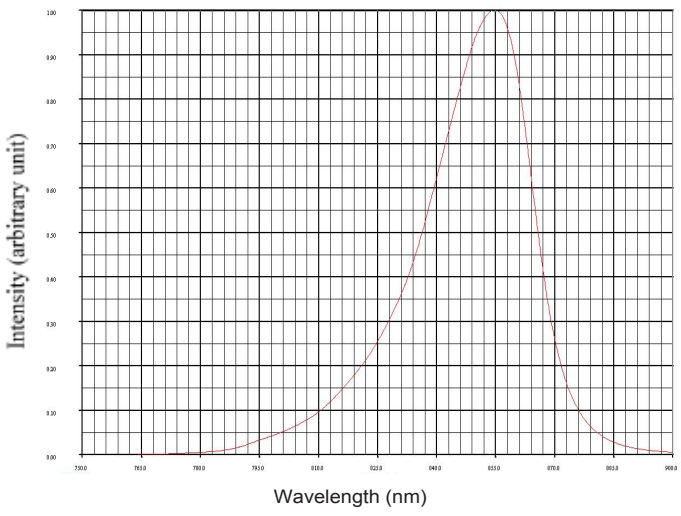
Bottom Side



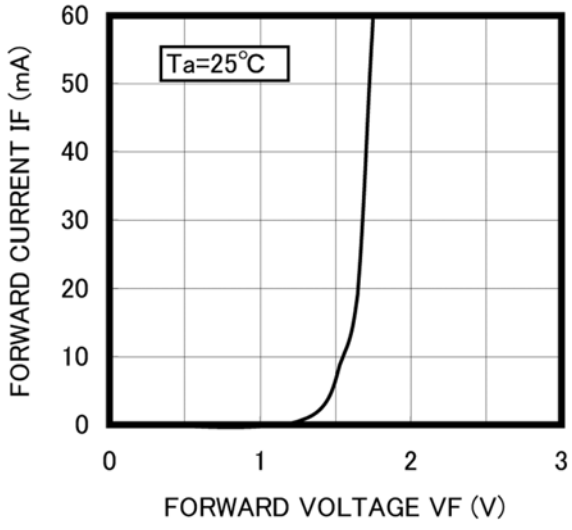
C - Cathode A - Anode
PINS 1 & 2 - No Connection



Spectral Response



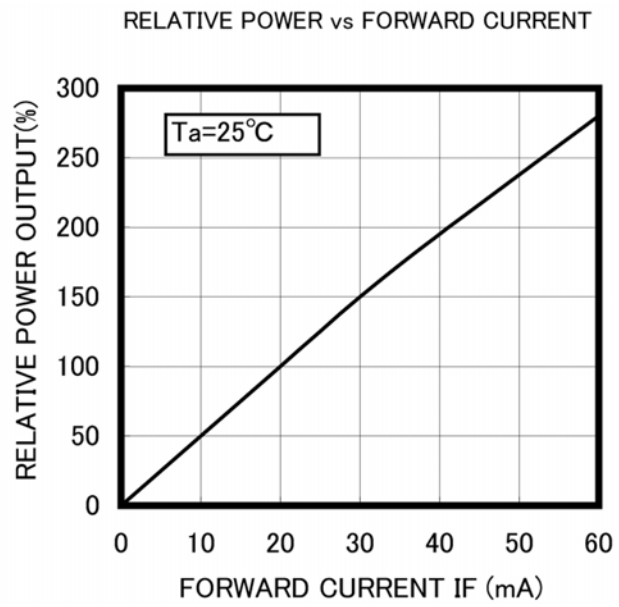
FORWARD I–V CHARACTERISTICS



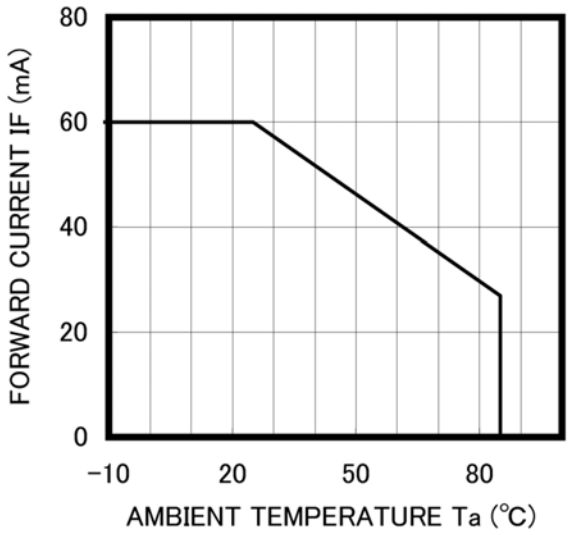
Unit: mm, Tolerance: ±0.2

2021-05-04

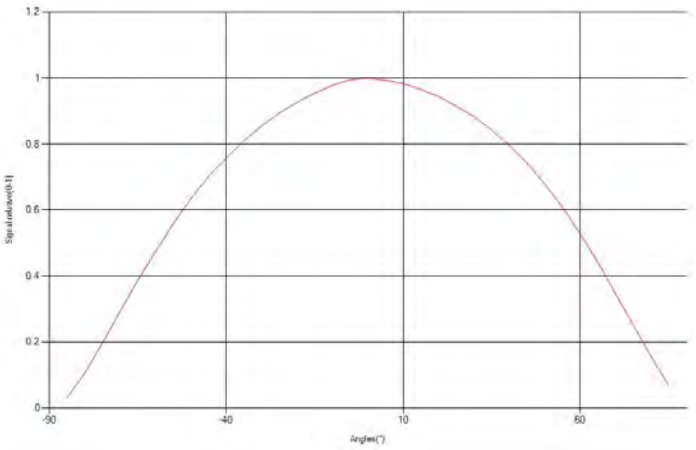
RELATIVE POWER vs FORWARD CURRENT



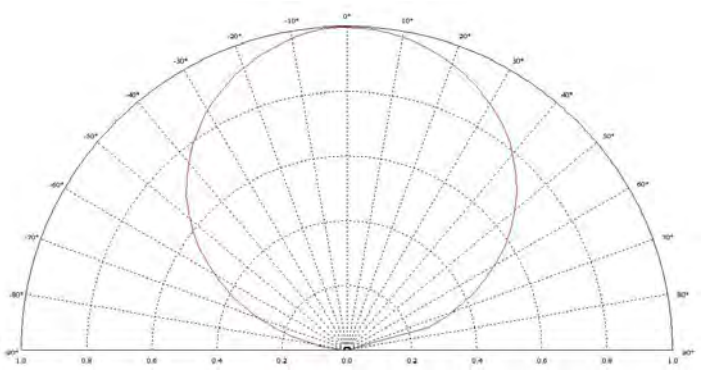
THERMAL DERATING CURVE



Radiation Distribution



View Angle



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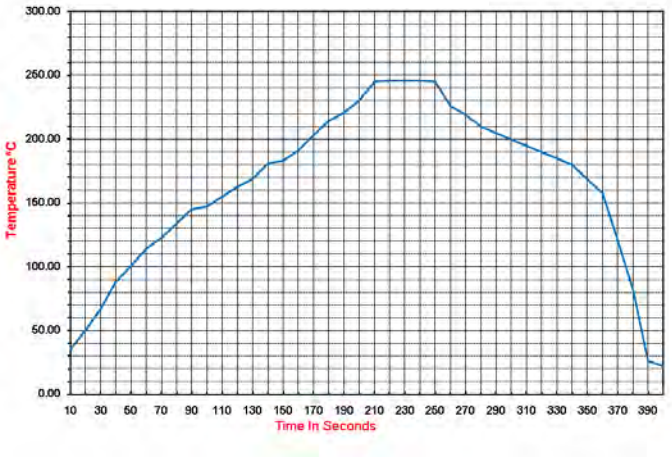
Solder Profile



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