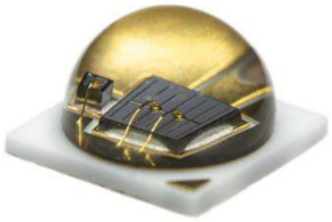
Optrans

SWIR Infrared Emitter

Product No: **MTSM4010-460-IR**

Peak Emission Wavelength: 1040nm

The MTSM4010-460-IR consists of a 1040nm high output infrared die in a 3.5mm x 3.5mm silicone surface mount package. Custom package solutions and sorting are available.



FEATURES

> High Output Power
> Wide Beam Angle
> High Reliability

APPLICATIONS

> Optical Switches & Sensors
> Fiber Optical Communication
> Bar-code Reader

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	1500	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	-40 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +85	°C

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=350mA	--	215	--	mW
Power Output	PO	IF=1000mA	--	550	--	mW
Forward Voltage	VF	IF=350mA	--	1.4	1.8	V
Forward Voltage	VF	IF=1000mA	--	1.7	--	V
Reverse Current	IR	VR=5V	--	--	10	μA
Peak Emission Wavelength	λp	IF=350mA	1020	1040	1060	nm
Spectral Line Half Width	Δλ	IF=350mA	--	40	--	nm
View Angle	Θ	IF=350mA	--	135	--	deg

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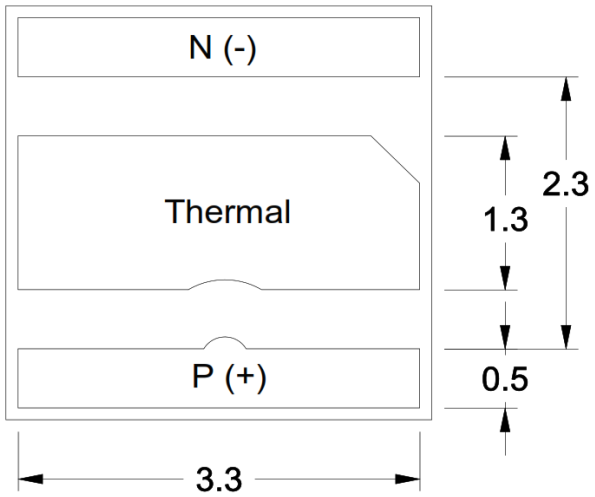

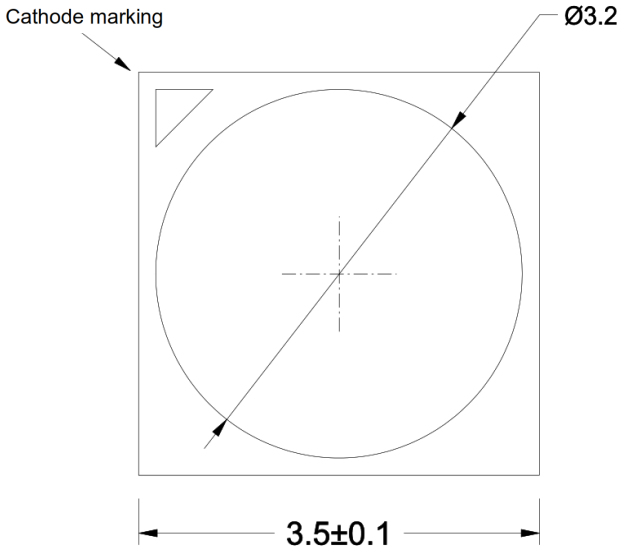

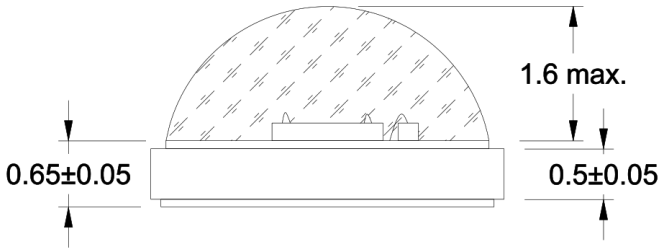

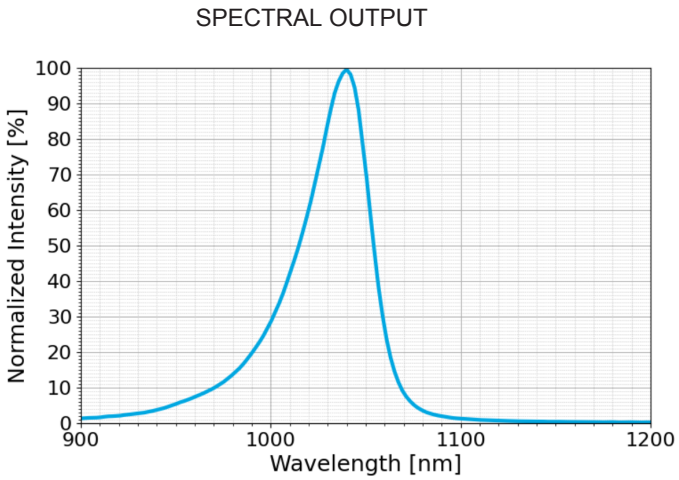

Unit: mm, Tolerance: ±0.2

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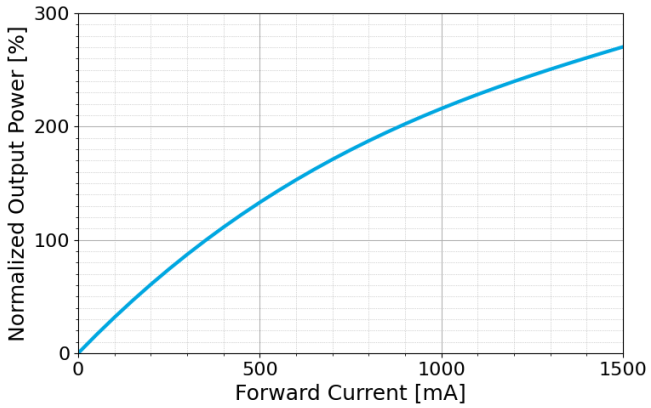
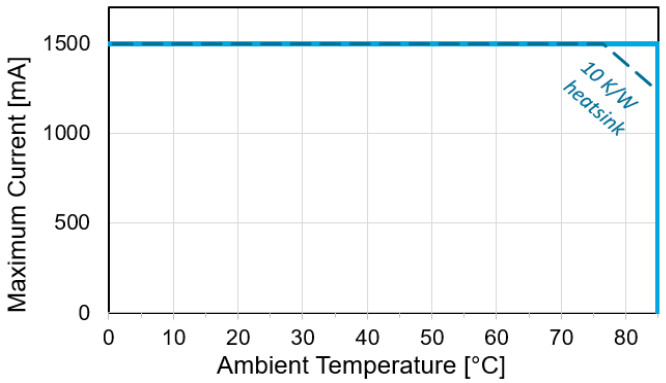
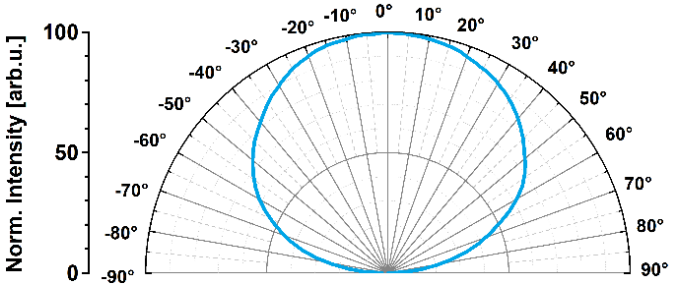
Relative Intensity vs Forward Current



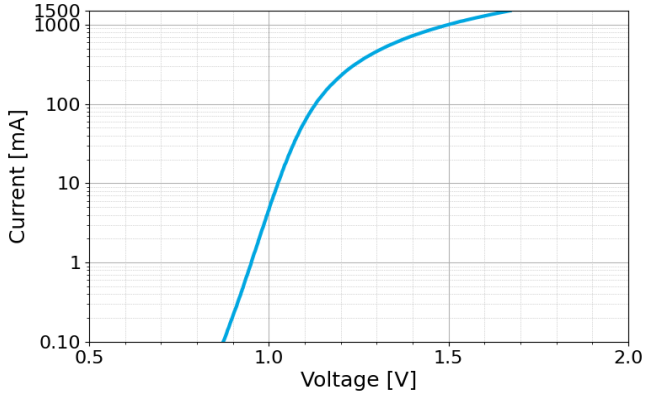
Maximum Rating (Heatsink)



RADIATION PATTERN



Forward Current vs Forward Voltage



The information contained herein is subject to change without notice.

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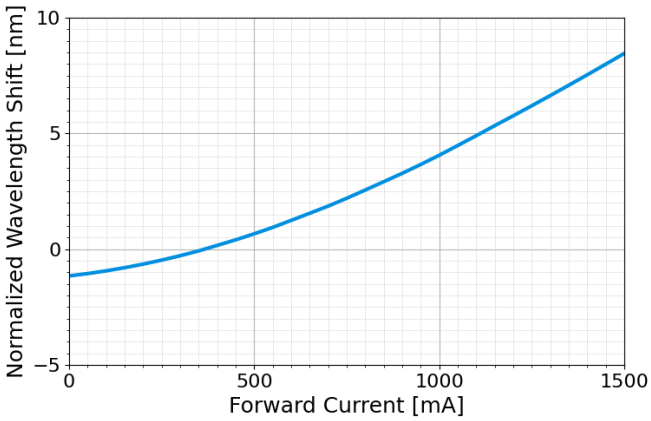
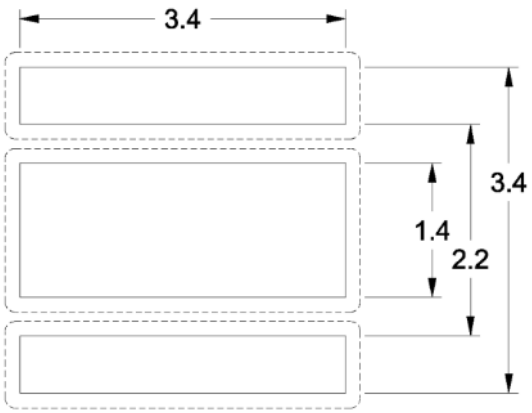
• **PHONE:** 81(44) 932-6491 • **FAX:** 81(44) 932-8281 • **EMAIL:** info@optransamerica.com

Wavelength Shift vs Forward Current

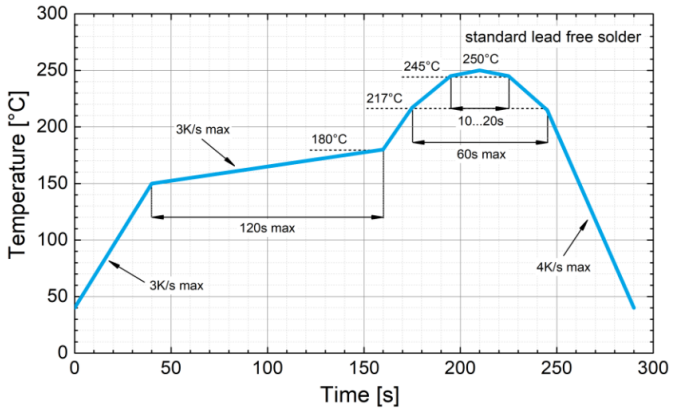


Recommended Solder Pattern

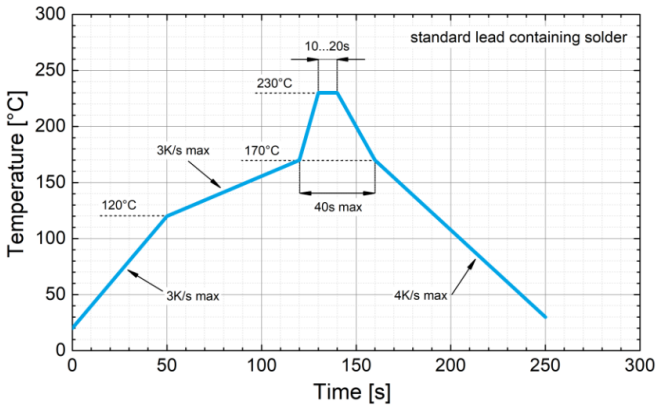


Unless otherwise specified, all drawing units are in mm

IR Reflow Profile (Lead Free)



IR Reflow Profile (Containing Lead)



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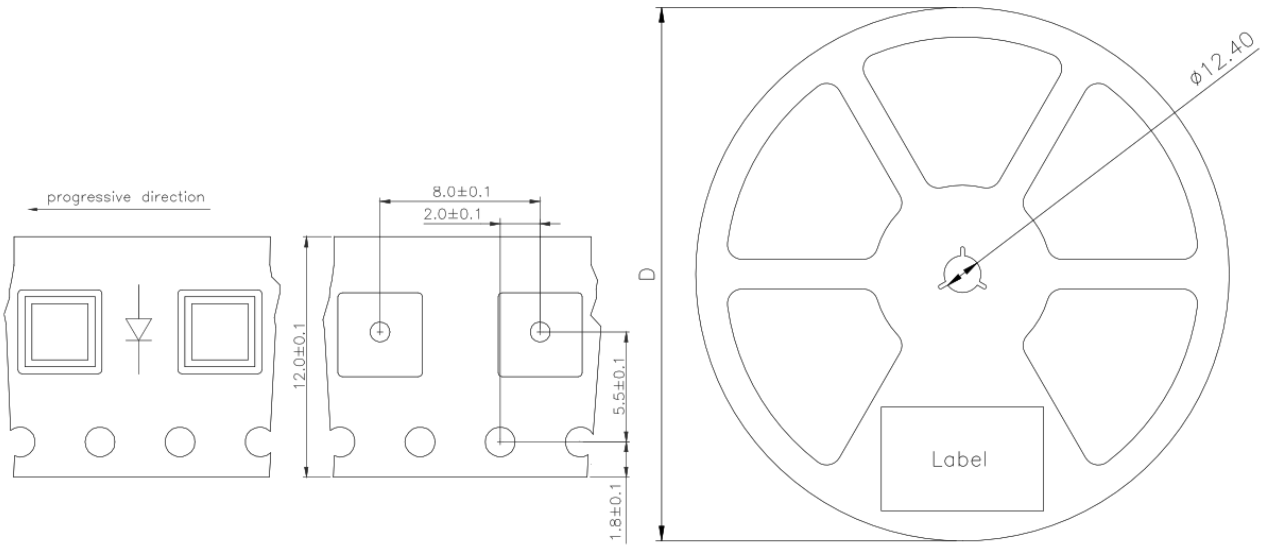
Tape and Reel Packaging



D	Parts/reel
7″	1000

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