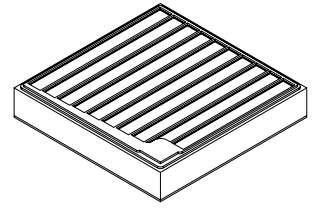


ODI3939TF.S2-850

OS-CORE® AlGaAs



Features:

- Polarity: n-side up
- Chip technology: IR Thinfilm
- Color: • infrared (850 nm)
- Chipsize: 39 mil x 39 mil

Ordering Information

Type
ODI3939TF.S2-850-MM-MM-1-C

Ordering Code
Q65112A8142

Maximum Ratings

Parameter	Symbol		Values
Operating Temperature	T_{op}	min.	-40 °C
		max.	125 °C
Storage Temperature ¹⁾	T_{stg}	min.	-40 °C
		max.	125 °C
Recommended Die Storage Temperature ≤ 60% RH	$T_{stg\ die}$	max.	30 °C
Junction Temperature	T_j	max.	145 °C
Forward Current $T_j = 25\text{ °C}$	I_F	max.	1000 mA
Forward Current Pulsed $t \leq 10\text{ }\mu\text{s}$; $D = 0.005$; $T_j = 25\text{ °C}$	$I_{F\ pulse}$	max.	2000 mA
Reverse voltage ²⁾ $T_j = 25\text{ °C}$	V_R	max.	12 V

Characteristics

$I_F = 1000\text{ mA}$; $T_j = 25\text{ °C}$

Parameter	Symbol		Values
Centroid Wavelength ³⁾ $I_F = 1000\text{ mA}$	$\lambda_{centroid}$	min.	845 nm
		max.	865 nm
Forward Voltage ⁴⁾ $I_F = 1000\text{ mA}$	V_F	min.	2.80 V
		max.	3.40 V

Additional Information

Die bonding	Metalization frontside	Metalization backside
Paste solder bonding	Gold	Gold
SAC reflow soldering		
Adhesive bonding		

Brightness and Wavelength Groups ⁵⁾³⁾

$I_F = 1000\text{ mA}$

Radiant Intensity

I_e
a. u.

Centroid Wavelength

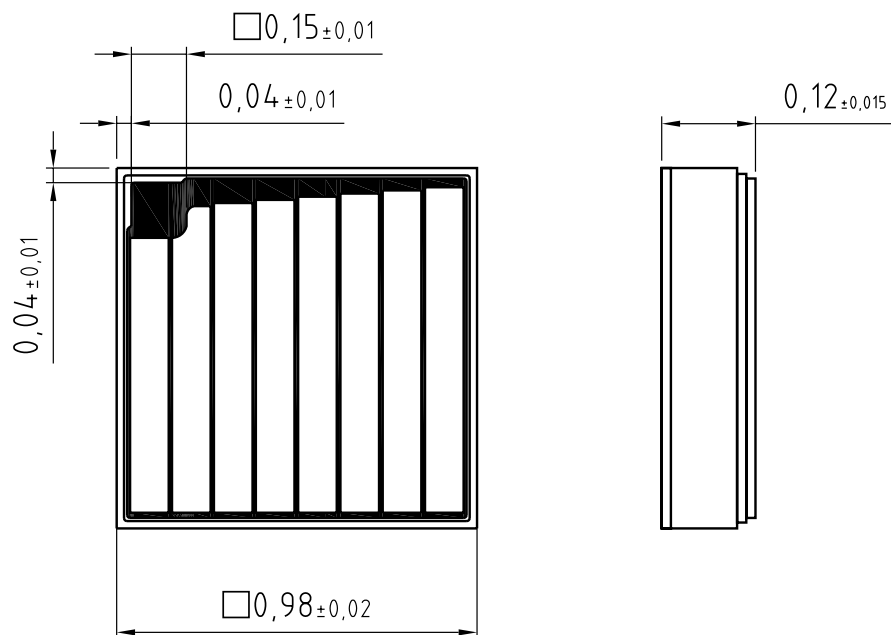
$\lambda_{\text{centroid}}$
nm
845 - 865

3500 - 5500

J40

DRAFT – For reference only. Subject to change without notice.

Dimensional Drawing ⁶⁾



C63062-A6000-A52 -01

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Glossary

- 1) **Shelf life:** Temperature refer solely to storage of finished LED product (Not valid for chip on die sheet).
- 2) **Reverse Operation:** Reverse Operation of 10 hours is permissible in total. Continuous reverse operation is not allowed.
- 3) **Wavelength:** The wavelength is measured at a current pulse of typically 10 ms and with an internal reproducibility of ± 1 nm (with a coverage factor of $k = 3$).
- 4) **Forward Voltage:** The forward voltage is measured during a current pulse of typically 5 ms and with an internal reproducibility of ± 0.1 V (with a coverage factor of $k = 3$).
- 5) **Brightness:** Brightness values are measured during a current pulse of typically 10 ms and with an internal reproducibility of ± 8 % (with a coverage factor of $k = 3$).
- 6) **Tolerance of Measure:** Unless otherwise noted in drawing, tolerances are specified with ± 0.1 and dimensions are specified in mm.

