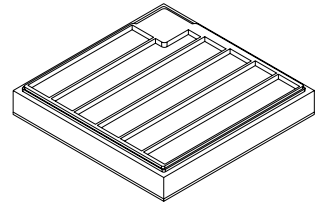


# ODI2929TF.S1-810

## OS-CORE® AlGaAs



### Features:

- Polarity: n-side up
- Chip technology: IR Thinfilm
- Color: • infrared (810 nm)
- Chipsize: 29 mil x 29 mil

### Ordering Information

Type  
ODI2929TF.S1-810-MM-MM-1-C

Ordering Code  
Q65112A8388

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## Maximum Ratings

Parameter	Symbol		Values
Operating Temperature	$T_{op}$	min.	-40 °C
		max.	125 °C
Storage Temperature <sup>1)</sup>	$T_{stg}$	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 <sup>2)</sup> $T_j = 25\text{ °C}$	$V_R$	max.	12 V

## Characteristics

$I_F = 500\text{ mA}$ ;  $T_j = 25\text{ °C}$

Parameter	Symbol		Values
Centroid Wavelength <sup>3)</sup> $I_F = 500\text{ mA}$	$\lambda_{\text{centroid}}$	min.	795 nm
		max.	814 nm
Forward Voltage <sup>4)</sup> $I_F = 500\text{ mA}$	$V_F$	min.	2.80 V
		typ.	3.12 V
		max.	3.60 V

## Additional Information

Die bonding	Metalization frontside	Metalization backside
Adhesive bonding	Gold	Gold

Brightness and Wavelength Groups <sup>5)3)</sup>

$I_F = 500\text{ mA}$

Radiant Intensity

$I_e$   
a. u.

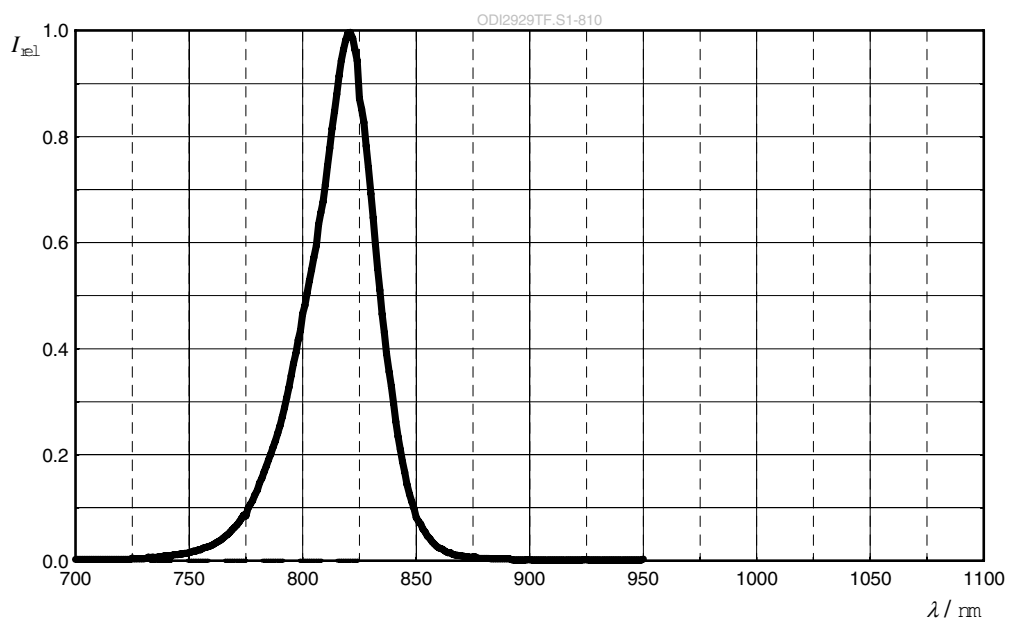
Centroid Wavelength

$\lambda_{\text{centroid}}$   
nm  
795 - 814

1620 - 2400

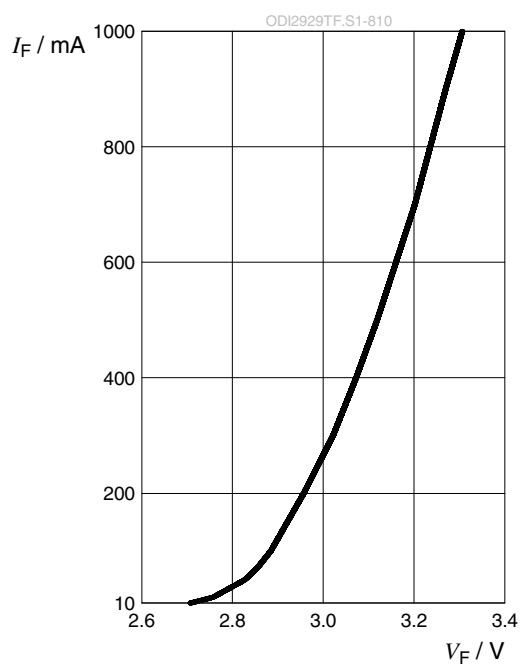
J40

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

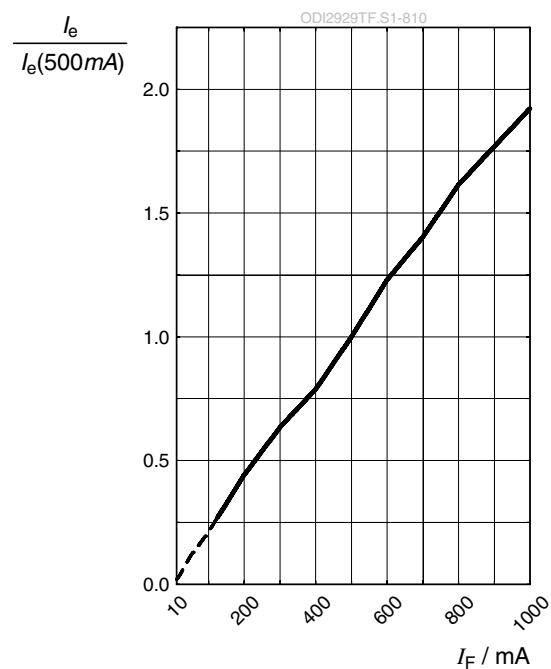
**Relative Spectral Emission** <sup>6)</sup> $I_{\text{rel}} = f(\lambda); I_F = 500 \text{ mA}; T_S = 25 \text{ }^\circ\text{C}$ 

**Forward current** <sup>6)</sup>

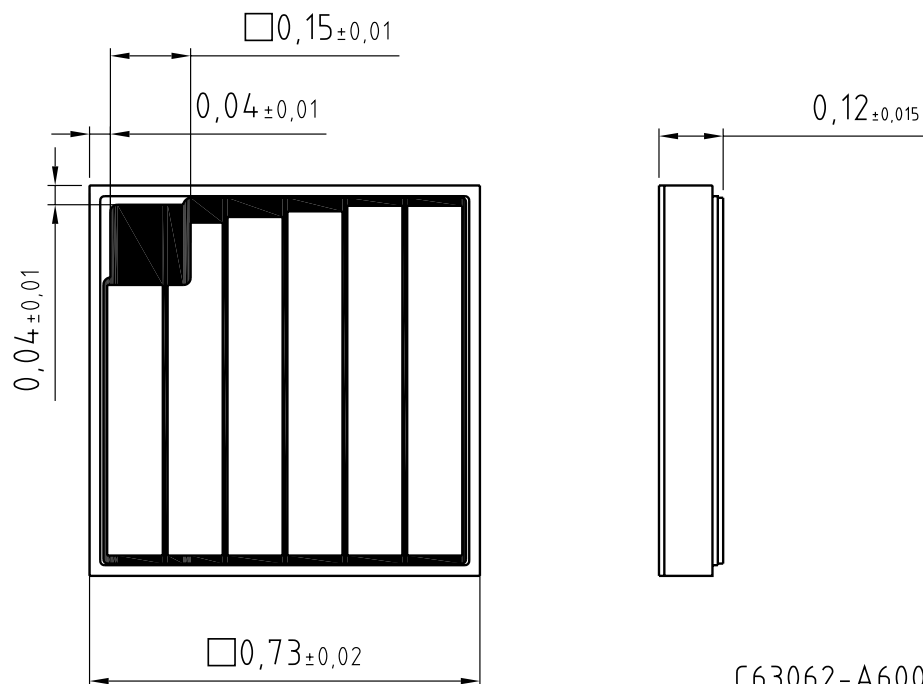
$$I_F = f(V_F); T_S = 25\text{ °C}$$

**Relative Radiant Intensity** <sup>6), 7)</sup>

$$I_E/I_E(500\text{ mA}) = f(I_F); T_S = 25\text{ °C}$$



## Dimensional Drawing <sup>8)</sup>



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In case Buyer – or Customer supplied by Buyer– considers using OSRAM OS components in product safety devices/applications or medical devices/applications, Buyer and/or Customer has to inform the local sales partner of OSRAM OS immediately and OSRAM OS and Buyer and /or Customer will analyze and coordinate the customer-specific request between OSRAM OS and Buyer and/or Customer.

## 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  $\pm 1$  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  $\pm 0.1$  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  $\pm 8$  % (with a coverage factor of  $k = 3$ ).
- 6) **Typical Values:** Due to the special conditions of the manufacturing processes of semiconductor devices, the typical data or calculated correlations of technical parameters can only reflect statistical figures. These do not necessarily correspond to the actual parameters of each single product, which could differ from the typical data and calculated correlations or the typical characteristic line. If requested, e.g. because of technical improvements, these typ. data will be changed without any further notice.
- 7) **Characteristic curve:** In the range where the line of the graph is broken, you must expect higher differences between single devices within one packing unit.
- 8) **Tolerance of Measure:** Unless otherwise noted in drawing, tolerances are specified with  $\pm 0.1$  and dimensions are specified in mm.

