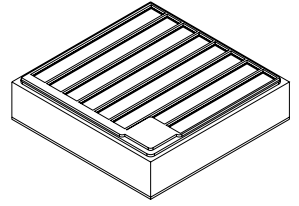


ODR2929TF.A1

OS-CORE® ThinGaAlP



Features:

- Polarity: n-side up
- Chip technology: Thinfilm
- Color: ● red
- Chipsize: 29 mil x 29 mil

Ordering Information

Type
ODR2929TF.A1-MM-MM-1-C

Ordering Code
Q65111A3260

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.	150 °C
Junction temperature for short time applications*	T_j	max.	175 °C
Forward Current $T_j = 25\text{ °C}$	I_F	min.	100 mA
		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.	1500 mA
Reverse voltage ²⁾ $T_j = 25\text{ °C}$	V_R	max.	12 V

*The median lifetime (L70/B50) for $T_j = 175\text{ °C}$ is 100h.

Characteristics

$I_F = 350\text{ mA}$; $T_j = 25\text{ °C}$

Parameter	Symbol		Values
Dominant Wavelength ³⁾ $I_F = 350\text{ mA}$	λ_{dom}	min.	611.0 nm
		max.	639.0 nm
Forward Voltage ⁴⁾ $I_F = 350\text{ mA}$	V_F	min.	2.00 V
		max.	2.50 V

Additional Information

Die bonding	Metalization frontside	Metalization backside
Adhesive bonding	Gold	Gold

Binning Table ⁵⁾³⁾ $I_F = 350 \text{ mA}$

Luminous Intensity Dominant Wavelength

I_v a. u.	λ_{dom} nm				
	611.0 - 613.5	613.5 - 616.0	616.0 - 621.0	621.0 - 624.0	624.0 - 628.0
6000 - 9000	A10	B10	C10	D10	E10
9000 - 11000	A13	B13	C13	D13	E13
11000 - 13000	A16	B16	C16	D16	E16
13000 - 16000	A19	B19	C19	D19	E19
16000 - 17500	A20	B20	C20	D20	E20
17500 - 19000	A22	B22	C22	D22	E22
19000 - 22000	A25	B25	C25	D25	E25
22000 - 25000	A28	B28	C28	D28	E28

Luminous Intensity

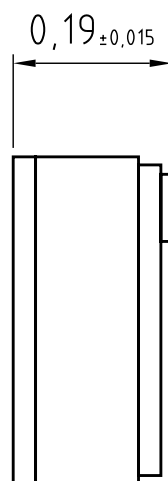
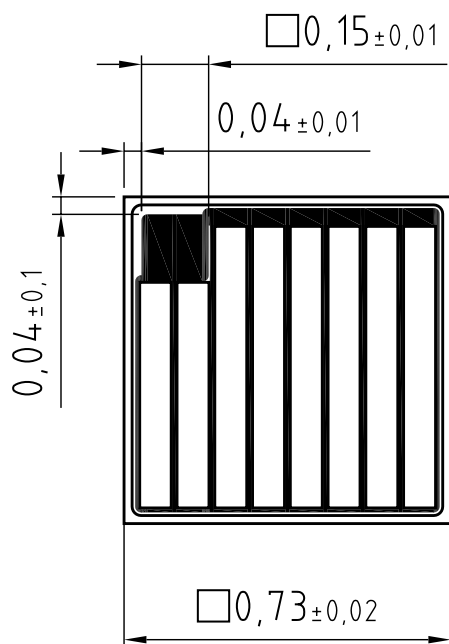
Dominant Wavelength

I_v a. u.	λ_{dom} nm		
	628.0 - 631.0	631.0 - 635.0	635.0 - 639.0
6000 - 9000	F10	G10	H10
9000 - 11000	F13	G13	H13
11000 - 13000	F16	G16	H16
13000 - 16000	F19	G19	H19
16000 - 17500	F20	G20	H20
17500 - 19000	F22	G22	H22
19000 - 22000	F25	G25	H25
22000 - 25000	F28	G28	H28

Correlation factor ⁶⁾

Unit	Value	Condition
CF (mcd / a.u.)	0.89	chip to air
CF (mlm / a.u.)	4.17	chip with silicone lens

Dimensional Drawing ⁷⁾



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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) **Correlation Factor:** The exemplary correlation factor (CF) was estimated by sample build of the chip in a reference package and describes the exemplary correlation between the chip brightness measured in arbitrary units (a.u.) and the brightness in a reference package: $CF = I/\Phi(\text{package}) / I(\text{chip})$. This factor is purely given as an indication of possible package brightness values. It may vary for different packages due to influences of geometries, reflectivity/refractive index of package materials or other material properties.
- 7) **Tolerance of Measure:** Unless otherwise noted in drawing, tolerances are specified with ± 0.1 and dimensions are specified in mm.

