7F, No. 349, Sec. 2, Renhe Road, Dashi, Taoyuan, Taiwan (R.O.C) 335

Cat No.: 7-1S-2000-045

Revision:

#### AllnGaP LED DICE

#### Part NO.: AOC-S14YxM-65 Series

#### **Features**

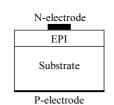
- Yellow color emission
- Excellent performance and high efficiency
- Great reliability even in harsh environment
- Mirror reflector to increase efficiency

#### **Description**

AOC-S14YxM-65 series is a yellow color emitting AlInGaP LED grown by MOCVD technique. Its structure enables enhanced quantum efficiency; the mirror reflector greatly increases the light extraction efficiency and therefore a greater light intensity. This device is designed for ultrahigh brightness (UHB) automobile, display, and consumer electronic applications.

#### **Chip Dimensions**





Chip Size :  $355\mu m \times 355\mu m \pm 25\mu m$ Bonding Pad : φ 100μm ±10μm Chip Thickness :  $165\mu m \pm 25\mu m$ 

### **Electrical and Optics Characteristics**

Measuring Item	Symbol	Condition	Condition Min		Max	Unit
Forward Voltage	$V_{F}$	I <sub>F</sub> =20mA	1.75 - 2.30		2.30	V
Reverse Current	Ir	V <sub>R</sub> =5V -		-	1.0	$\mu$ A
Dominant Wavelength	λd	$I_F = 20 \text{mA}$ 582		-	598	nm
Max. Junction Temperature	$T_{\text{max}}$	-	≦ 120			$^{\circ}\!\mathbb{C}$
Max. DC forward current	$I_{\mathrm{f}}$	Ta = 25°C	≤ 70		mA	
Max. pulse forward current (Pulse width 0.1 msec, frequency=1 kHz.)	$ m I_{fm}$	Ta = 25°C	≤ 140			mA
Storage temperature	$T_{ m stg}$	Chip on tape	0 ~ 40		$^{\circ}\! \mathbb{C}$	
		Only chip	<b>-</b> 40 ~ 80			

## **Available Dominate Wavelength and Iv Matrix**

Part No.	Wavelength Range	≥360 mcd	≥400 mcd	≥460 mcd	≥520 mcd
S14YSM-65	582 ~ 594 nm	Y36	Y40	Y46	Y52
S14YLM-65	592 ~ 598 nm	-	Y40	Y46	Y52

#### Note:

- All measurements are done with AOC's standard testing equipment.
- Luminance intensity is measured on bare chip.
- Above contents are subject to change without notice
- Special requests are also welcome, please contact AOC's sale representative for any request. Characteristics curves are measured within TO-46 package.



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