



BRIGHTTEK
BRIGHTTEK (EUROPE) LIMITED

Brighten up The World With LED!



ISO/TS 16949:2009



BS EN ISO 14001:2004



QC 080000 IECQ HSPM

PRODUCT DATASHEET



- ▶ Ceramic High Power
- ▶ 4A4A IR Module 4.65t
- ▶ IR 850nm

NOF62M54



Release Date: 29 September 2022 Version: A1.0



4A4A IR Module



FEATURES:

- **Package:** Ceramic 1212 IR LED with MCPCB Module
- **Forward Current:** 1.2A
- **Forward Voltage (typ.):** 5V
- **Radiant Power (typ.):** 1900mW@1.2A
- **Colour:** Infrared (IR)
- **Peak Wavelength:** 850nm
- **Viewing angle:** 120°
- **Materials:**
 - Substrate: AlN
 - Lens: Crystal Glass
- **Operating Temperature:** -40~+80°C
- **Storage Temperature:** -40~+100°C
- **Grouping parameters:**
 - Forward Voltage
 - Radiant Power
 - Peak Wavelength
- **Soldering methods:** IR Reflow soldering
- **MSL:** Level 4 according to J-STD020
- **Packing:** carton with min.10pcs

APPLICATIONS:

- Security Camera
- Medical Device
- Fluorochemistry
- Bacterial Identification
- Cosmetology
- Magnetic Particle Inspection
- Clean Room Inspection
- Mineralogy

CHARACTERISTICS:

Absolute Maximum Characteristics (Ta=25°C)

Parameter	Symbol	Ratings	Unit
DC Forward Current	I_F	1200	mA
Pulse Forward Current D=0.01s; Duty 1/10	I_{PF}	3000	mA
Reverse Voltage	V_R	20	V
Leakage Current @5V	I_R	10	μ A
Junction Temperature	T_j	105	°C
Thermal Resistance Junction to Solder Point	R_{thj-sp}	2	°C/W
Operating Temperature	T_{OPR}	-40~+80	°C
Storage Temperature	T_{STG}	-40~+100	°C

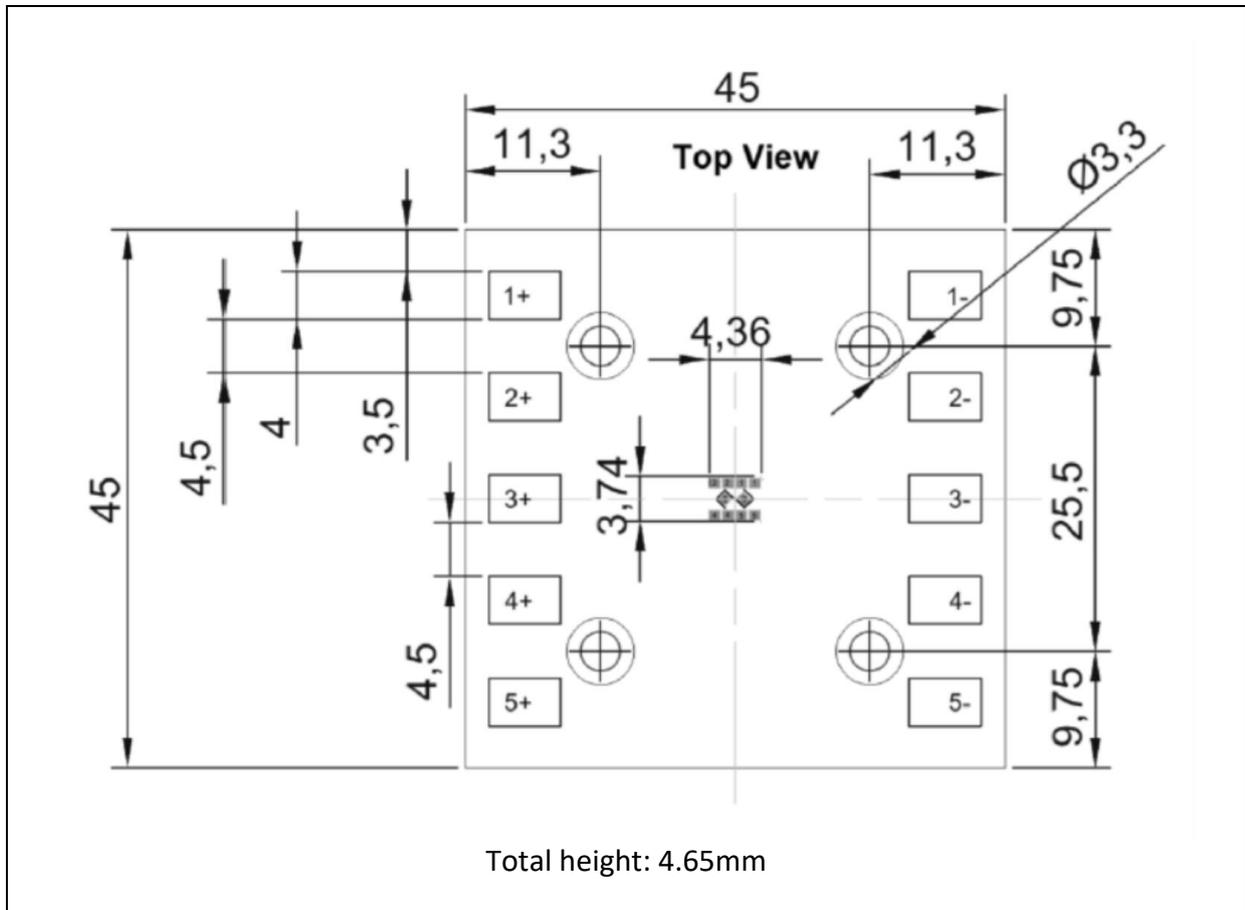
Electrical & Optical Characteristics (Ta=25°C)

Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Forward Voltage	V_F	4	---	6	V	$I_F=1.2A$
Radiant Power	P_O	1800	---	2000	mW	$I_F=1.2A$
Peak Wavelength	W_P	840	---	860	nm	$I_F=1.2A$
Viewing Angle	$2\theta_{1/2}$	---	120	---	deg	$I_F=1.2A$

1. Radiant Power (P_O) $\pm 10\%$, Forward Voltage (V_F) $\pm 0.05V$, Wavelength (nm) $\pm 2nm$

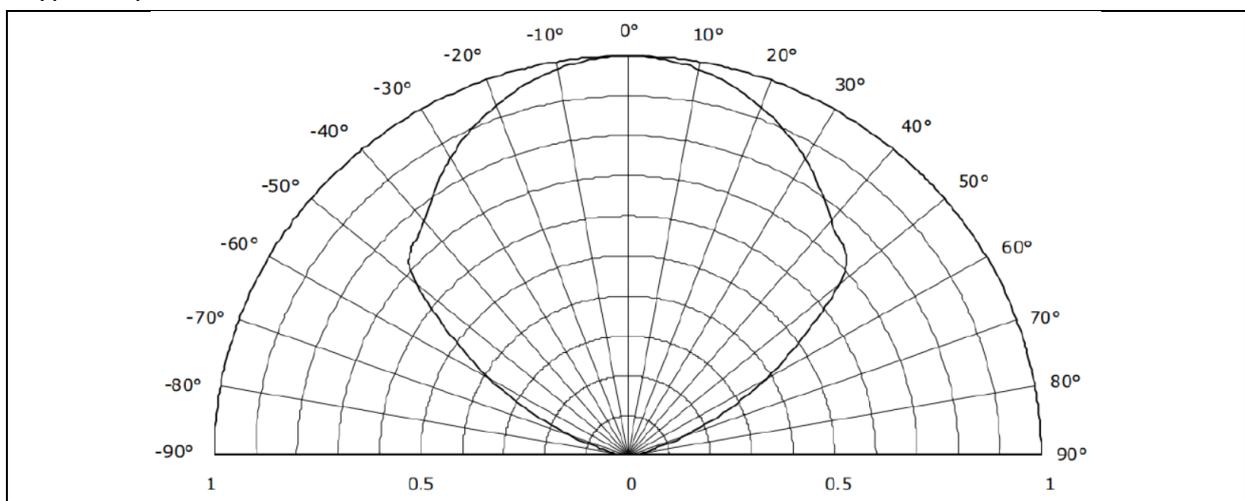
OUTLINE DIMENSION:

Package Dimension:



1. All dimensions are in millimetre (mm).
2. Tolerance ± 0.13 mm, unless otherwise noted.

Typical Spatial Distribution:



PRECAUTIONS OF USE:

Storage:

It is recommended to store the products in the following conditions:

- Humidity: 60% R.H. Max.
- Temperature: 5°C~30°C (41°F ~86°F).

Shelf life in sealed bag: 12 months at 5°C~30°C and <60% R.H.

Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp-proof box with desiccating agent <10% R.H. and apply baking before use.

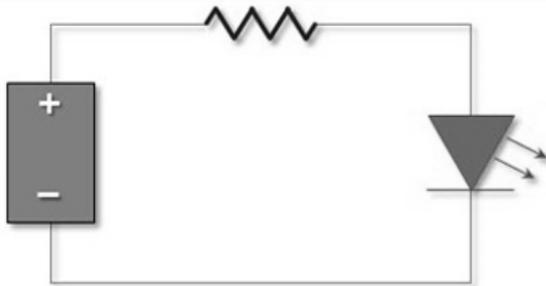
Baking:

It is recommended to bake the LED before soldering if the pack has been unsealed for longer than 24hrs. The suggested baking conditions are as followings:

- 65±3°C x 24hrs and <5%RH, taped / reel package.

It's normal to see slight color fading of carrier (light yellow) after baking in process.

Testing Circuit:



Must apply resistor(s) for protection (over current proof).

Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED carrier / package. Avoid putting any stress force directly on to the LED lens.

ESD (Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling the LED all time. All devices, equipment, machinery, work tables, and storage racks must be properly grounded.

In the events of manual working in process, make sure the devices are well protected from ESD at any time.

REVISION RECORD:

Version	Date	Summary of Revision
A1.0	09/09/2022	Datasheet set-up.
A1.1	29/09/2022	Add package height: 4.65mm.