ТЕХНИЧЕСКОЕ ОПИСАНИЕ

МОЩНЫЙ СВЕТОДИОД ARPL-STAR-3W-EPL42 RED

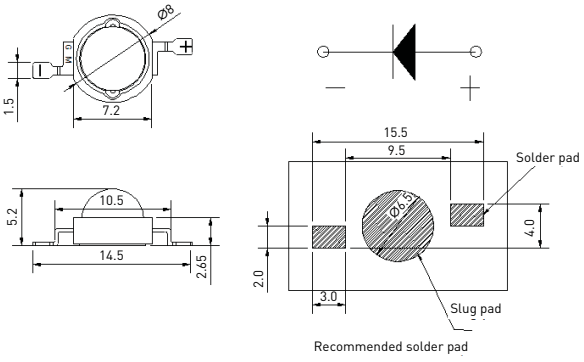
FEATURES

- Low voltage operation.
- Instant light.
- Long operating life.

APPLICATIONS

- Outdoor lighting (street lamp, underwater lamp, underground lamp, wall washer lamp, stage lamp, plant lamp).
- Indoor lighting (lamp, sky lantern, wall lamp, tube lamp, track lamp, corridor lamp).

PACKAGE DIMENSIONS



Note: all dimensions in mm tolerance is ±0.1mm unless otherwise noted.

PARAMETERS

ABSOLUTE MAXIMUM RATING (AT T_A= +25 °C)

Parameter	Symbol	Rating	Unit
DC Forward Current	I_F	**700**	**mA**
Peak Pulse Current*	I_{FP}	**1000**	**mA**
Reverse Voltage	V_R	**5**	**V**
Power Dissipation (250 eter)	P_D	**3**	**W**
Operating Temperature Range	T_{OPR}	**–30... +75**	**°C**
Storage Temperature Range	T_{STG}	**–40... +85**	**°C**
LED Junction Temperature	T_J	**125**	**°C**

* 1/10 Duty Cycle, 0.1ms Pulse Width.

ELECTRO-OPTICAL CHARACTERISTICS — WHITE (AT T_A= +25 °C)

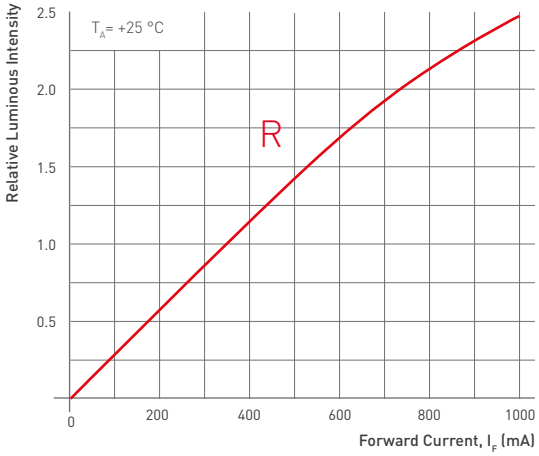
Parameter	Symbol	Min.	Avg.	Max.	Units	Conditions
Forward Voltage	V_F	**2.2**	**—**	**2.5**	**V**	**I_F=700mA**
Thermal Resistance Junction To Board	$R\Theta_{J-B}$	**—**	**8**	**—**	**°C/W**	**I_F=700mA**
Luminous Flux	Φv	**100**	**—**	**120**	**lm**	**I_F=700mA**
Dominant Wavelength	λd	**620**	**—**	**630**	**nm**	**I_F=700mA**
Temperature Coefficient of Forward Voltage	$\Delta V_F/\Delta T$	**—**	**-2**	**—**	**mV/°C**	**I_F=700mA**
Reverse Current	I_R	**—**	**—**	**10**	**μA**	**V_R=5V**
Viewing Angle[1]	$2\Theta_{1/2}$	**—**	**140**	**—**	**Deg**	**I_F=700mA**

Notes:
1. $2\Theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. The above luminous flux measurement allowance tolerance is ±10%.
3. The above forward voltage measurement allowance tolerance is ±0.1V.
4. The wavelength measurement error shown above is ±0.1nm.

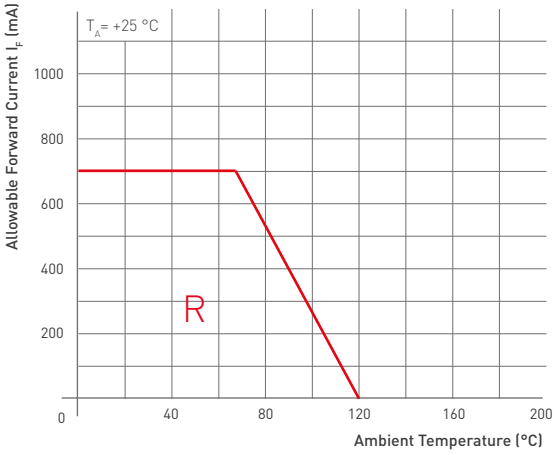
TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

(T_A=+25 °C, Unless Otherwise Noted)

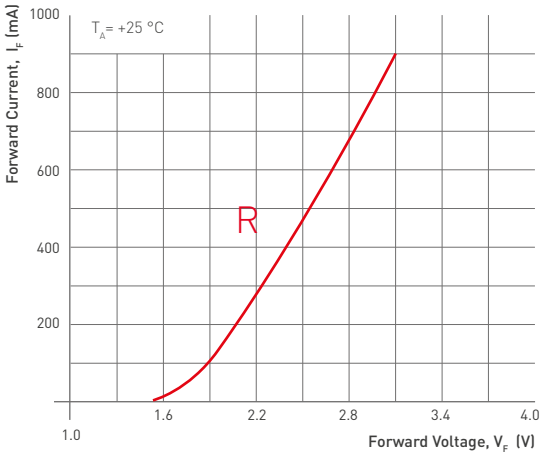
Relative Luminous Intensity — I_F



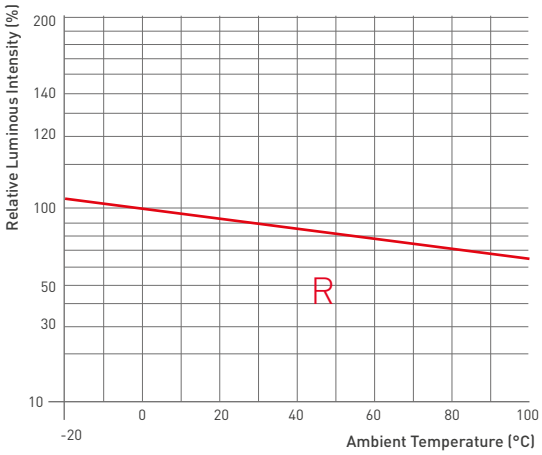
Allowable Forward Current — T_A



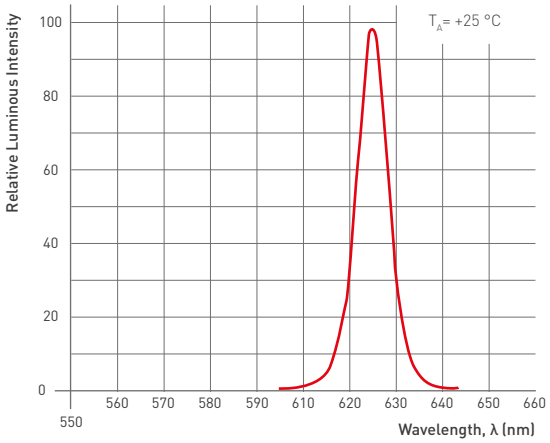
I_F — V_F



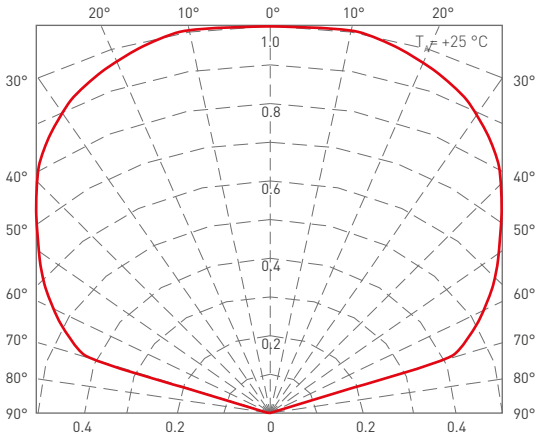
Relative Luminous Intensity — T_A



Wavelength Characteristics



Radiation Angle

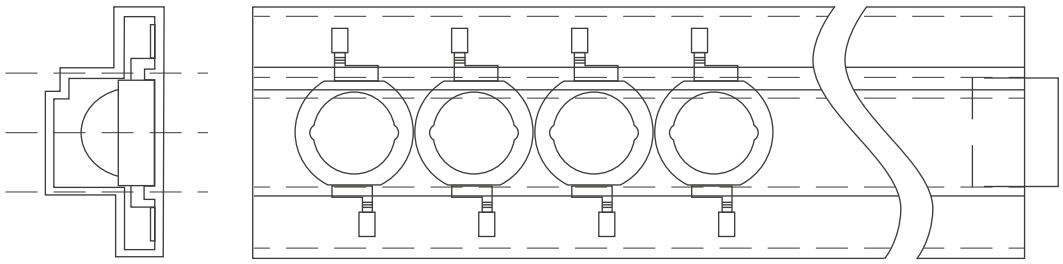


RELIABILITY TEST STANDARDS

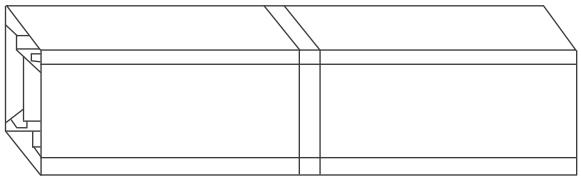
Test Item	REF. Standard	Test condition	Duration	Sample count	Accept
Temperature cycle	**JESD22-A104-A**	**–40... +25... +100... +25 °C 30 min, 5 min, 30 min, 5 min**	**100 cycles**	**22**	**0/22**
High temperature storage	**JEITA ED-4701 200 201**	**Ta=100±5 °C**	**1000 hrs**	**22**	**0/22**
Low temperature storage	**JEITA ED-4701 200 202**	**Ta=–40±5 °C**	**1000 hrs**	**22**	**0/22**
Humidity heat storage	**JIS C 7021 (1977) B-11**	**Ta=60 °C RH=85%**	**1000 hrs**	**22**	**0/22**
Life test	**JESD22-A108-A**	**Ta=25 °C IF=700mA**	**1000 hrs**	**22**	**0/22**
High humidity heat life test	**JESD22-A101**	**Ta=60 °C RH=85% IF=700mA**	**1000 hrs**	**22**	**0/22**
Resistance to soldering heat	**JESD22-A113**	**IR soldering 245 °C/10sec**	**1 time**	**22**	**0/22**

PACKING STANDARD

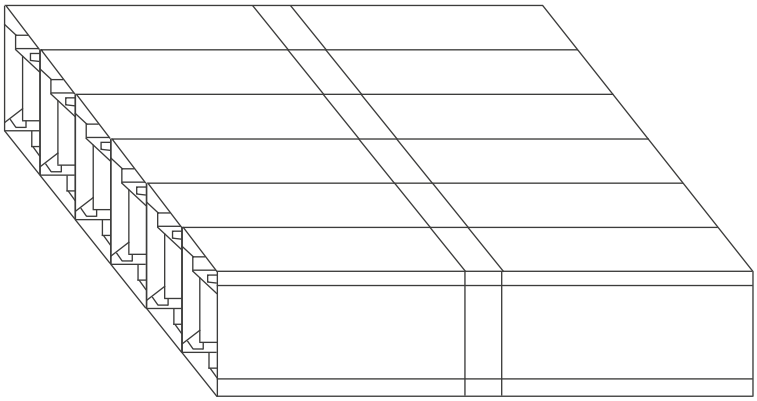
Normal packing weight: 0.041 kg/each tube, 0.877 kg/1K



50 pcs/tube



4 tubes



20 tubes