

ЧИП-СВЕТОДИОД ARL-5060RGB

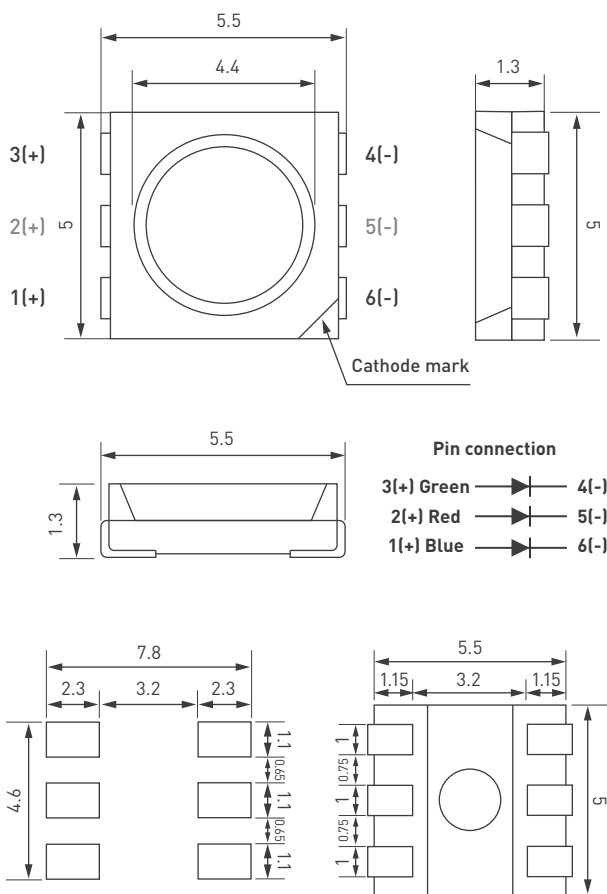
FEATURES

- Low voltage operation
- Instantly light
- Long operating life

APPLICATIONS

- General lighting, backlighting
- Spot light, ceiling light
- Urban lighting, commercial lighting show

PACKAGE DIMENSIONS



Notes: All dimensions in mm tolerance is $\pm 0.1\text{mm}$ unless otherwise noted.



PARAMETERS

Article	015150(1)
Model	ARL-5060RGB

ABSOLUTE MAXIMUM RATINGS ($T_A = +25^\circ\text{C}$)

Parameter	Symbol	Rating		Unit
		R	G/B	
DC Forward Current	I_F	20		mA
Peak Pulse Current*	I_{FP}	40		mA
Reverse Voltage	V_R	5		V
Power Dissipation	P_D	0.06	0.06	W
Operating Temperature Range	T_{opr}	-30...+75		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40...+85		$^\circ\text{C}$
LED Junction Temperature	T_J	125		$^\circ\text{C}$

Notes: 1/10 Duty Cycle 0.1ms Pulse Width.

ELECTRICAL/OPTICAL CHARACTERISTICS-WHITE ($T_A = +25^\circ\text{C}$)

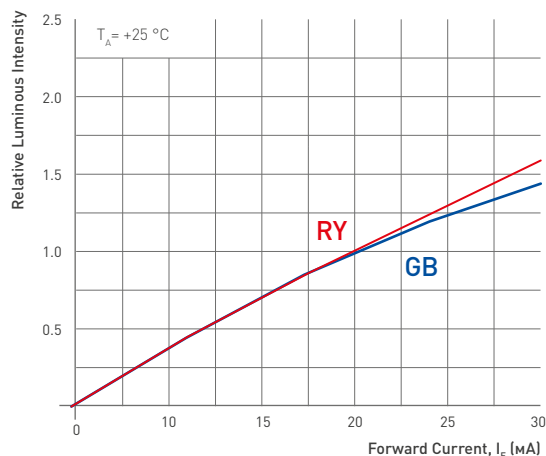
Parameter	Symb.	Conditions	Min	Max	Min	Max	Min	Max	Unit
			R	G	B				
Forward Voltage	V_F	$I_F=20\text{mA}$	2.0	2.4	3.0	3.4	3.0	3.4	V
Thermal Resistance Junction to Board	$R\theta_{J-B}$	$I_F=20\text{mA}$	10		10		10		$^\circ\text{C}/\text{W}$
Luminous Intensity	I_v	$I_F=20\text{mA}$	200	300	1000	1500	250	350	mcd
Dominant wavelength	λ_d	$I_F=20\text{mA}$	620	630	520	530	460	470	nm
Temperature Coefficient of Forward Voltage	$\Delta V_F/\Delta T$	$I_F=20\text{mA}$	2		2		2		mV/ $^\circ\text{C}$
Viewing Angle ⁽¹⁾	$2\theta_{1/2}$	$I_F=20\text{mA}$			120				Deg
Reverse Current	I_R	$V_R=5\text{V}$	10		10		10		μA

Notes: Voltage of 0.2V

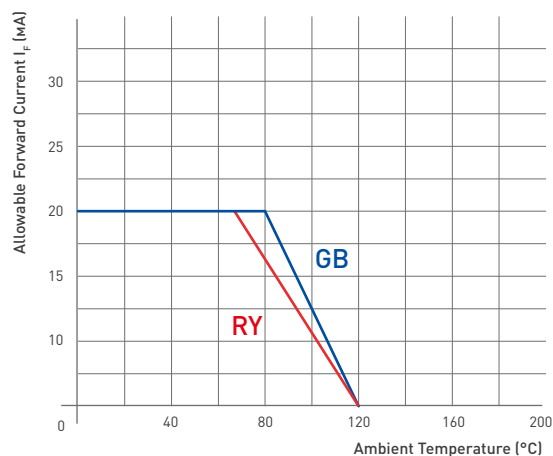
TYPICAL OPTICAL/ELECTRICAL CHARACTERISTICS CURVES

($T_A = +25\text{ }^{\circ}\text{C}$, UNLESS OTHERWISE NOTED)

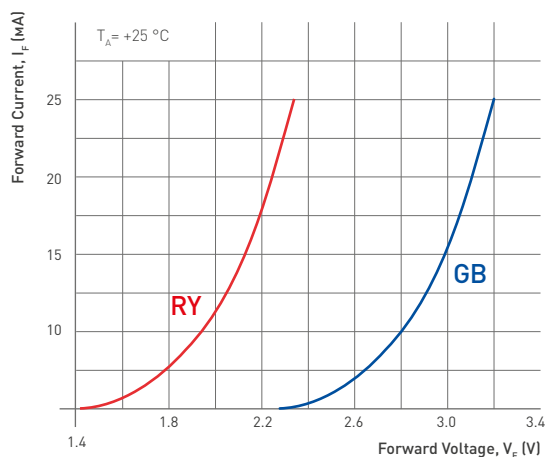
Relative Luminous Intensity — I_F



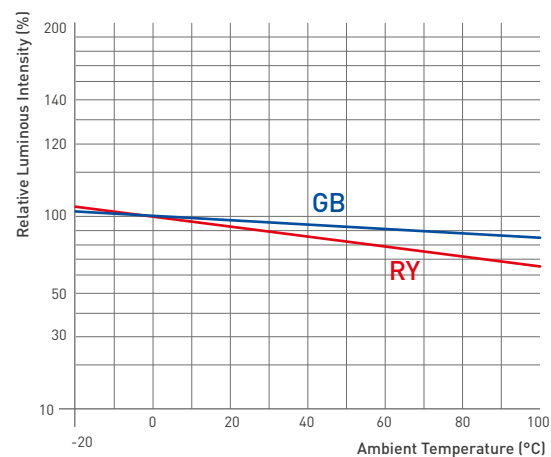
Allowable Forward Current — T_a



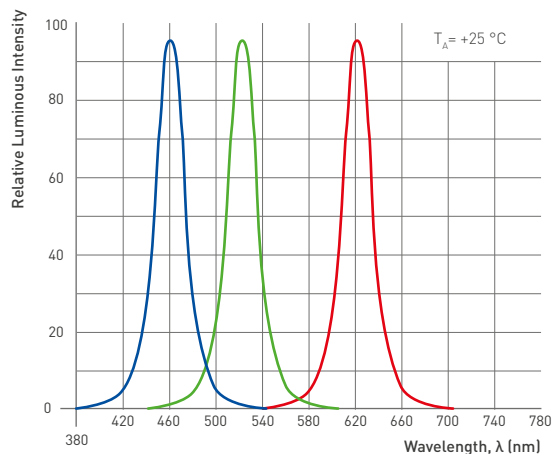
$I_F - V_F$



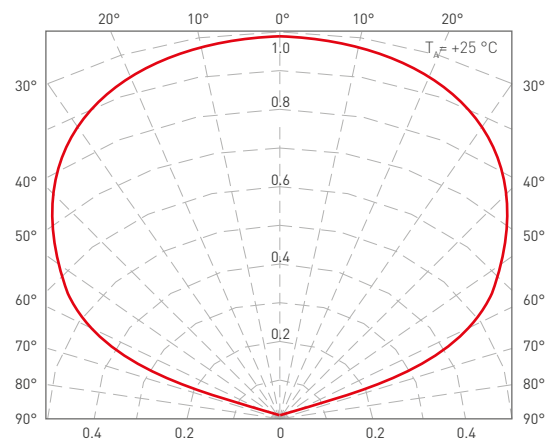
Relative Luminous Intensity — T_a



Wavelength Characteristics



Radiation Angle

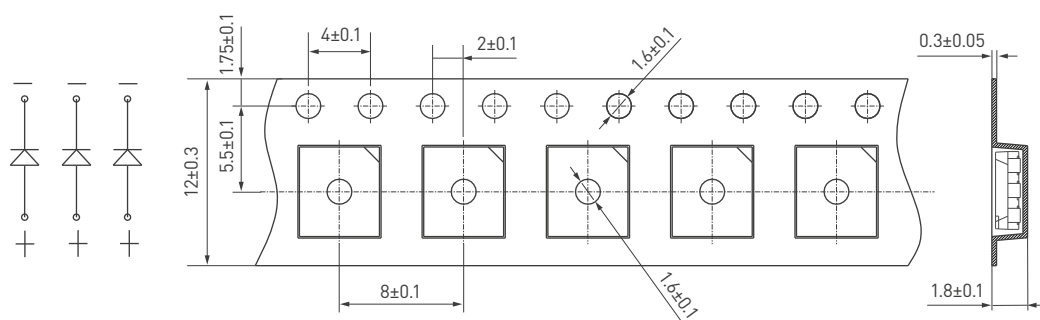


RELIABILITY TEST STANDARDS

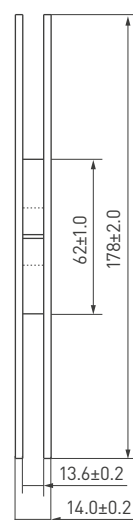
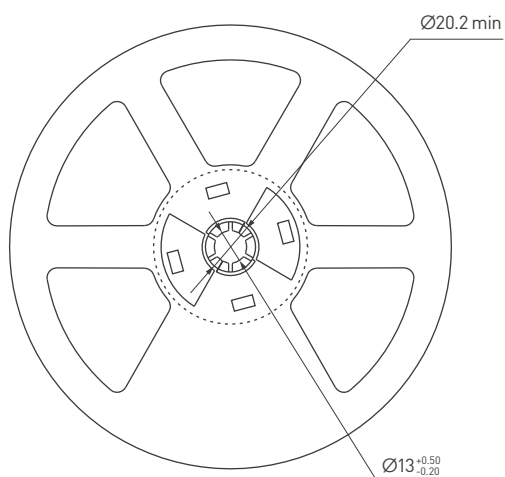
Type	Test Item	Reference Standard	Test Condition	Duration	Sample Count	Accept
	Temperature Cycle	JESD22-A104-A	-40... +25... +100... +25 °C 30 min, 5 min, 30 min, 5 min	100 cycles	22	0/22
	Thermal Shock	JESD22-A106	-40... +100 °C 30 min, 30 min	100 cycles	22	0/22
	High Temperature Storage	JEITA ED-4701 200 201	T _A =100±5 °C	1000 hrs	22	0/22
	Low Temperature Storage	JEITA ED-4701 200 202	T _A =-40±5 °C	1000 hrs	22	0/22
	Humidity Heat Storage	JIS C 7021(1977) B-11	T _A =60 °C R _H =85%	1000 hrs	22	0/22
	Life Test	JESD22-A108-A	T _A =25 °C I _f =20*3mA	1000 hrs	22	0/22
	High Humidity Heat Life Test	JESD22-A101	T _A =60 °C R _H =85% I _F =20*3mA	1000 hrs	22	0/22
	Resistance to Soldering Heat	JESD22-A113	I _R soldering 245 °C/10sec	1 time	22	0/22

PACKING STANDARD

Normal packing quantity: 1000 pcs/reel



Reel Specifications



Moisture Resistant Packaging

