

RAB362G4B

Hi-Eff Green

Ultra-Thin Right-Angled Edge Light / Backlight LEDs
9.2 x 2mm, Rectangle Body, 1.1mm Height
120° viewing angle

DWG BY:
BL / GP
08-19-08

CHK BY:
PL
08-20-08

QA:

__-__-__

MFG:

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REVISION LTR: -
08-19-08

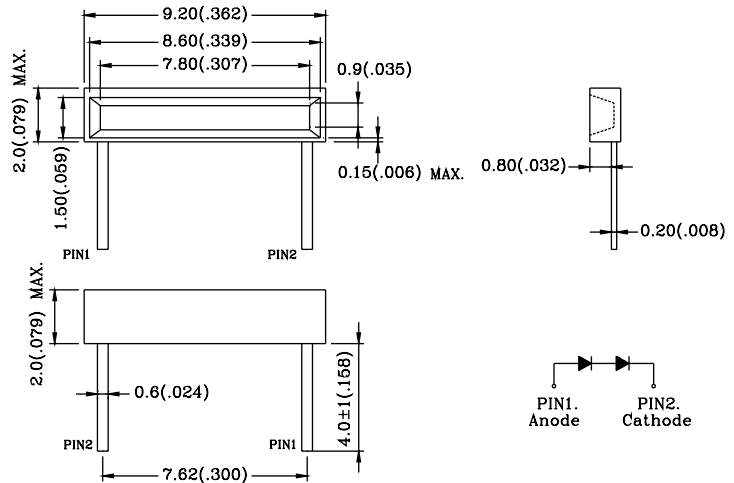
● **Features:**

1. Emitted Color: Hi-Eff Green.
2. Lens Appearance: Green Transparent.
3. Low cost plastic package.
4. This product is RoHS compliant.

● **Applications:**

1. Automotive: Dashboards, stop lamps, turn signals.
2. Backlighting: LCDs, Key pads advertising.
3. Status indicators: Consumer & industrial electronics.
4. General use.

● **Package Dimensions:**



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise specified.
3. Specifications are subject to change without notice.

● **Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	100	mW
Forward Current	I _F	30	mA
Peak Forward Current * 1	I _{FP}	100	mA
Reverse Volage	V _R	5	V
Operating Temperature	Topr	-25°C ~80°C	-
Storage Temperature	Tstg	-30°C ~85°C	-
Soldering Temperature	Tsol	See Page 4	-

* 1 Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

● **Electrical and optical characteristics(Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=20mA$	-	4.2	5.2	V
Luminous Intensity	I_v	$I_F=20mA$	-	54	-	mcd
Reverse Current	I_R	$V_R=5V$	-	-	100	μA
Peak Wave Length	λ_p	$I_F=20mA$	-	567	-	nm
Dominant Wave Length	λ_d	$I_F=20mA$	-	570	-	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	30	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	120	-	deg
Radiant Intensity		$I_F=20mA$	-	-	-	$\mu W/sr$
Chromaticity Coordinates	X	$I_F=20mA$	-	0.45	-	
	Y		-	0.54	-	

● **Typical Electro-Optical Characteristics Curves**

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

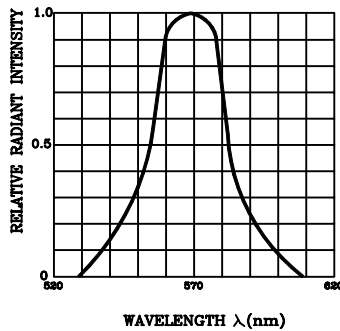


Fig.2 FORWARD CURRENT DERATING CURVE

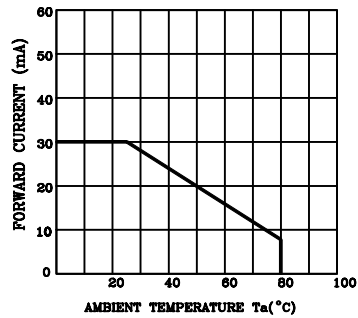


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

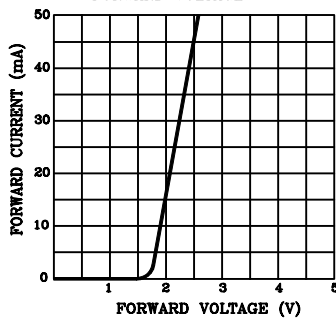


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

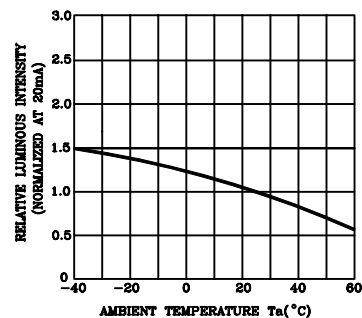


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

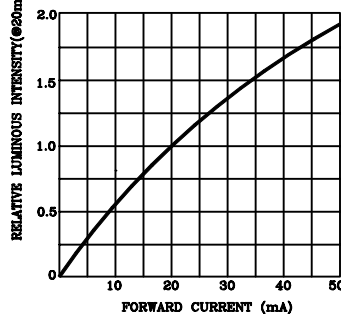
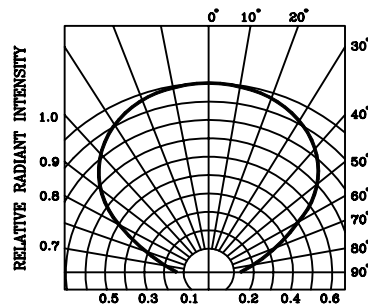


Fig.6 RADIATION DIAGRAM RADIATION DIAGRAM



● **Reliability Test**

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021 :B-1	Connect with a power $I_f=20\text{mA}$ T_a =Under room temperature Test time=1,000hrs	0/20
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	$T_a=+65^\circ\text{C}\pm 5^\circ\text{C}$ RH=90%-95% Test time=240hrs	0/20
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High $T_a=+85^\circ\text{C}\pm 5^\circ\text{C}$ Test time=1,000hrs	0/20
	Low Temperature Storage	JIS-C-7021 :B-12	Low $T_a=-35^\circ\text{C}\pm 5^\circ\text{C}$ Test time=1,000hrs	0/20
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4	$-35^\circ\text{C} \sim +25^\circ\text{C} \sim +85^\circ\text{C} \sim +25^\circ\text{C}$ 60min 20min 60min 20min Test Time=5cycle	0/20
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	$-35^\circ\text{C}\pm 5^\circ\text{C} \sim +85^\circ\text{C}\pm 5^\circ\text{C}$ 20min 20min Test Time=10cycle	0/20
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	Preheating : 140°C -160°C ,within 2 minutes. Operation heating : 235°C (Max.), within 10seconds. (Max.)	0/20

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward voltage	V_F (V)	$I_f=20\text{mA}$	Over $U_x1.2$
Reverse current	I_r (uA)	$V_r=5\text{V}$	Over U_x2
Luminous intensity	I_v (mcd)	$I_f=20\text{mA}$	Below $SX0.5$

Note: 1.U means the upper limit of specified characteristics. S means initial value.

2.Measurment shall be taken between 2 hours and after the test pieces have been returned to normal ambient conditions after completion of each test.