BRIGHT LED ELECTRONICS CORP.

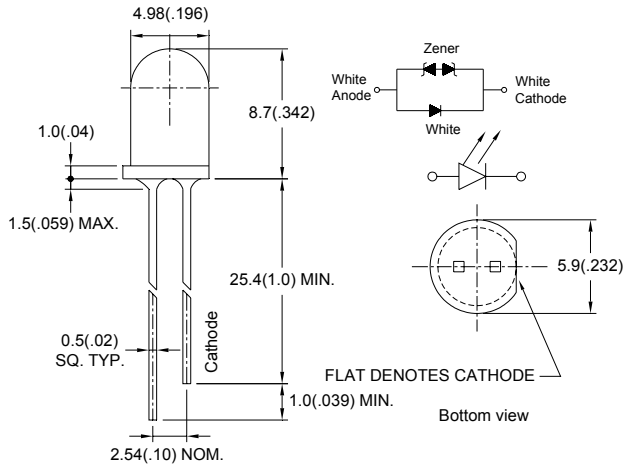
SINCE 1981

BZ-BZ52V4V-2-M36

● Features:

1. Chip material: InGaN
2. Emitted color : White
3. Lens Appearance : White Diffused
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 5mm diameter package
9. This product don't contained restriction substance, compliance RoHS standard.

● Package dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (0.01") unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

● Absolute maximum ratings(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Forward Current	I_F	30	mA
Peak Forward Current*[1]	I_{FP}	150	mA
Reverse Voltage	V_R	4	V
Operating Temperature	Topr	-40℃~85℃	
Storage Temperature	Tstg	-40℃~100℃	
Soldering Temperature	Tsol	260℃max(for 5 seconds)	
Hand Soldering Temperature	Tsol	350℃max(for 3 seconds)	

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

● Electrical and optical characteristics(Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	-	3.2	3.6	V
Luminous Intensity	Iv	I_F=20mA	-	1500	-	mcd
Reverse Current	I_R	V_R=4V	-	-	100	μA
Chromatically Coordinates(note 4)	X	I_F=20mA	-	0.32	-	--
	Y	I_F=20mA	-	0.31	-	-
Spectral Line Half-width	Δλ	I_F=20mA	-	30	-	nm
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	-	70	-	deg

● Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

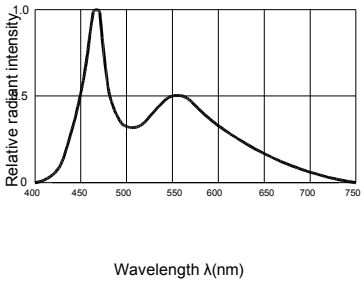


Fig.2 Forward current derating curve vs. Ambient temperature

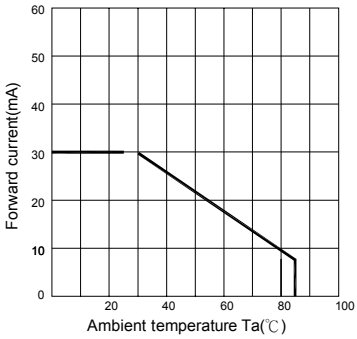


Fig.3 Forward current vs. Forward voltage

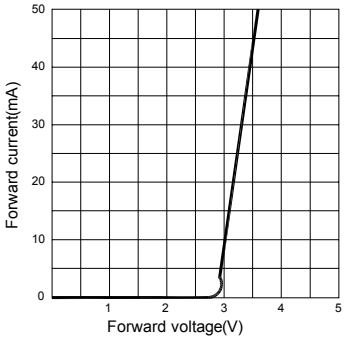


Fig.4 Relative luminous intensity vs. Ambient temperature

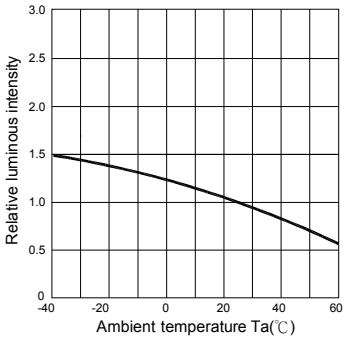


Fig.5 Relative luminous intensity vs. Forward current

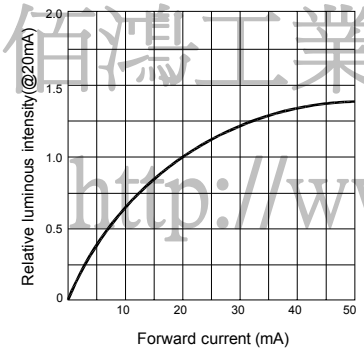
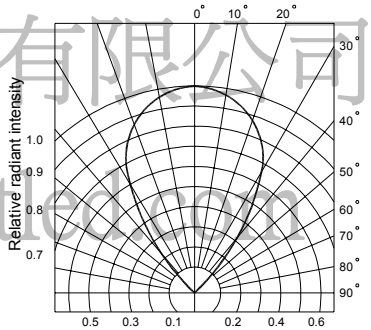


Fig.6 Radiation diagram



● Bin Limits

1. Intensity bin limits (At I_F= 20mA)

Bin Code	Min. (mcd)	Max. (mcd)
U	475	715
V	715	1070
W	1070	1600
X	1600	2400
Y	2400	3700

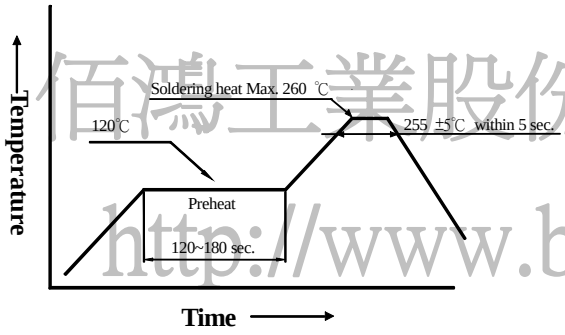
● Bin : x

Intensity bin code

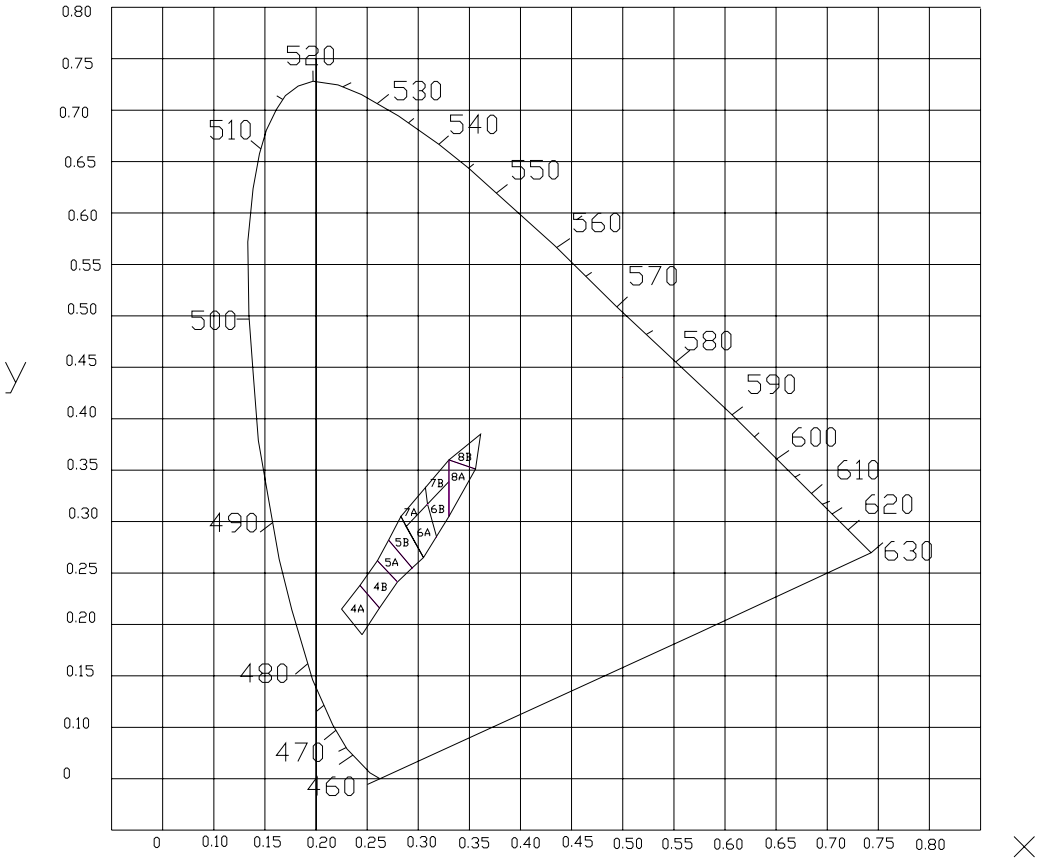
NOTES:1.Tolerance of measurement of luminous intensity. :±15%

●DIP soldering (Wave Soldering)

Preheating : 120℃,within 120~180 sec.
Operation heating : 255℃±5℃ within 5 sec.260℃ (Max)
Gradual Cooling (Avoid quenching).



2. Color Bin Limits (nm at 20mA)



白光細分座標值

BIN 座標	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B
X1	0.245	0.262	0.279	0.294	0.305	0.318	0.287	0.309	0.33	0.356
Y1	0.19	0.216	0.242	0.255	0.265	0.285	0.296	0.317	0.305	0.351
X2	0.225	0.243	0.26	0.271	0.288	0.309	0.283	0.307	0.33	0.33
Y2	0.215	0.238	0.262	0.282	0.295	0.317	0.305	0.333	0.36	0.36
X3	0.243	0.26	0.271	0.283	0.309	0.33	0.307	0.33	0.33	0.361
Y3	0.238	0.262	0.282	0.305	0.317	0.339	0.333	0.36	0.36	0.385
X4	0.262	0.279	0.294	0.305	0.318	0.33	0.309	0.33	0.356	0.356
Y4	0.216	0.242	0.255	0.265	0.285	0.305	0.317	0.339	0.351	0.351