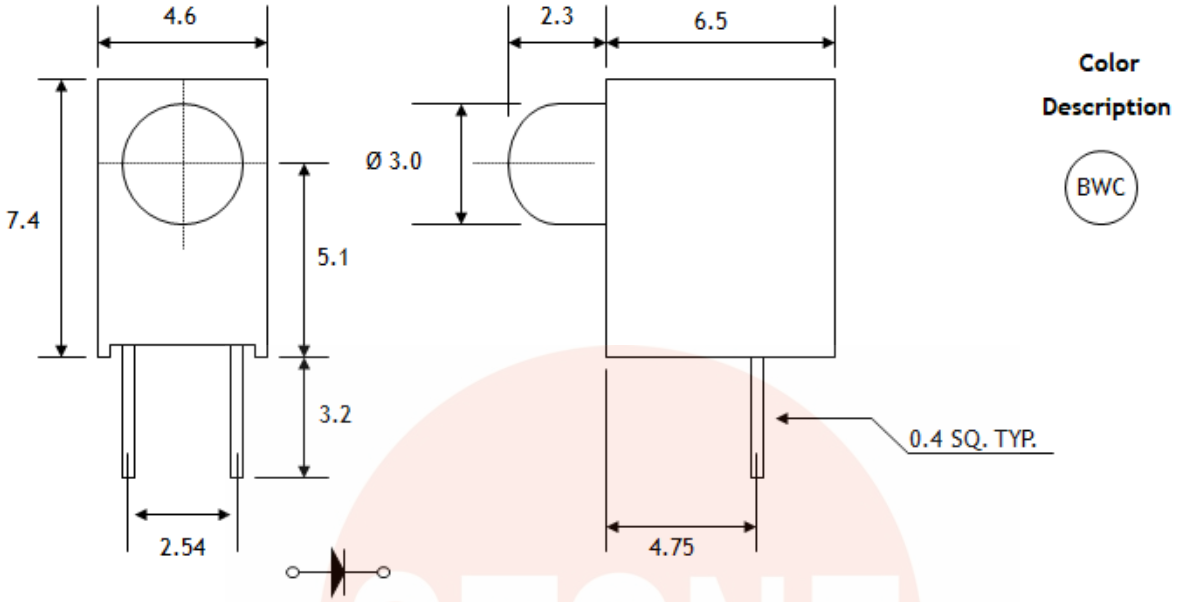
■ Dimensions

BL-33(BWC)-1



Notes: 1. All measurements are ±0.3 mm unless otherwise indicated.
2. The appearance of encapsulation tolerance is ±0.25 mm
3. The maximum dimensions of protruded resin flange (NOTE3) is 1.0mm

■ Maximum Rating(Ta=25℃)

Characteristics	Symbol	Rating	Unit
DC Forward Current	I_F	30	mA
Pulse Forward Current*3	I_{PF}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	mW
Junction Temperature	T_J	110	°C
Operating Temperature Range	T_{OP}	-40-85	°C
Storage Temperature Range	T_{STG}	-40-100	°C
Soldering Temperature*4	T_{SD}	260	°C

Notes 1: There is no maximum or typical voltage parameter

2: For other ambient, limited setting of current will be depended on de-rating curves.

3: Duty 1/10, pulse width 0.1ms

4: The maximum of soldering time is 5 seconds in T_{SD}

■ Typical Product Characteristics(Ta=25℃)

Characteristics	Symbol	Min.	Typ.	Max.	Unit	Test condition
Forward Voltage	V_F	2.8	3.2	3.6	V	I_F=20mA
Reverse Current	I_R	-	-	10	μA	V_R= 5V
Luminous Intensity	Iv	3700	5300	-	mcd	I_F=20mA
Dominant Wavelength	λd	462.5	-	472.5	nm	I_F=20mA
View Angle	$2\theta_{1/2}$	-	25	-	deg	I_F=20mA

Notes: 1. Measurement Errors:

Forward Voltage: ±0.1V, Luminous Intensity: ±10%Iv, Dominant Wavelength: ±1.0nm

2. Electrical-Optical Characteristics (Ta=25℃)

■ Range of Bins

1).Forward Voltage Bins(I_F=20mA)

Bin Code	Min. V_F (V)	Max. V_F (V)
B	2.8	3.0
C	3.0	3.2
D	3.2	3.4
E	3.4	3.6

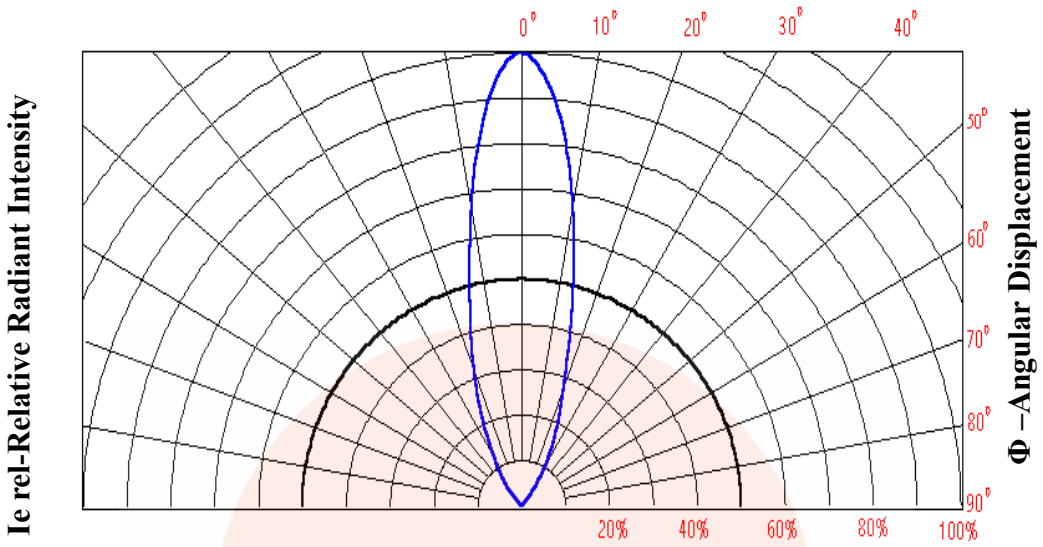
2).Luminous Intensity Bins(I_F=20mA)

Bin code	Min. Iv (mcd)	Max. Iv (mcd)
23	3700	4900
24	4900	6300
25	6300	8200

3).Dominant Wavelength Bins(I_F=20mA)

Bin Code	Min. λd (nm)	Max. λd (nm)
D	462.5	467.5
E	467.5	472.5

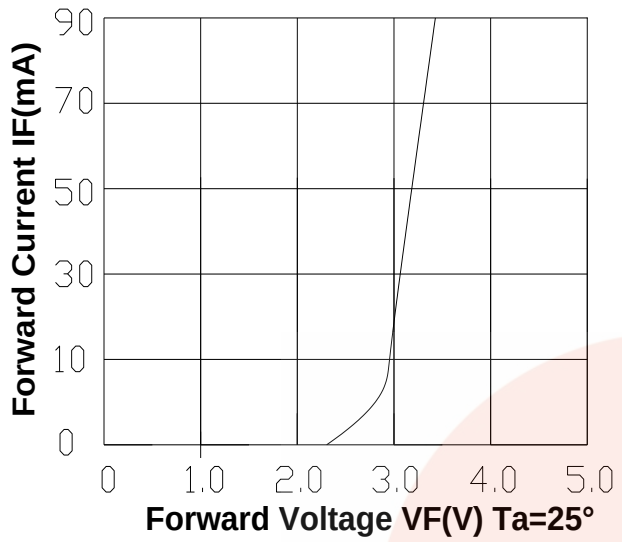
■ Directive Characteristics(Ta=25℃)



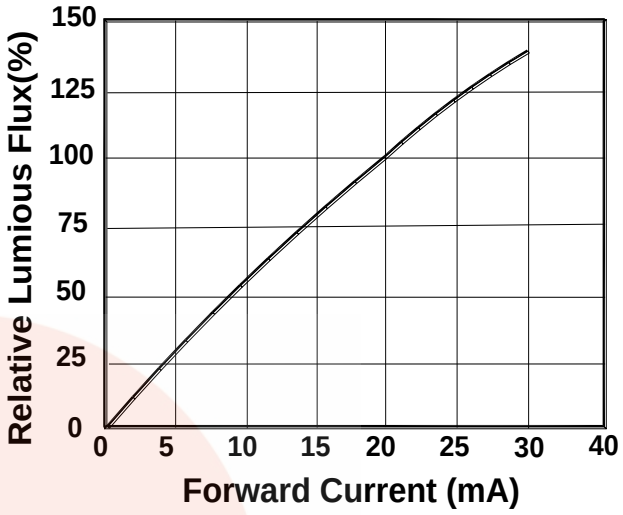
Relative Radiant Intensity vs .Angular Displacement

■ Electronic-Optical Characteristics

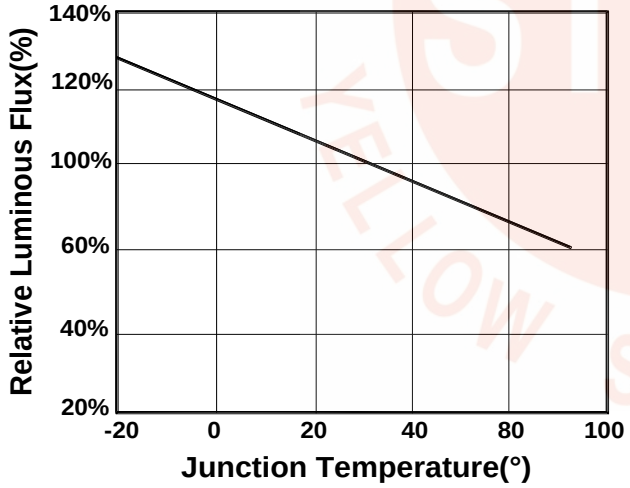
1). Forward Current I_F-V_F



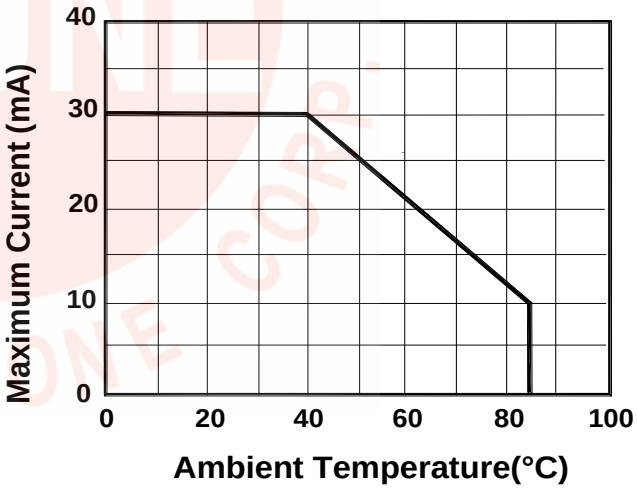
2). Relative Luminous Intensity-I_F



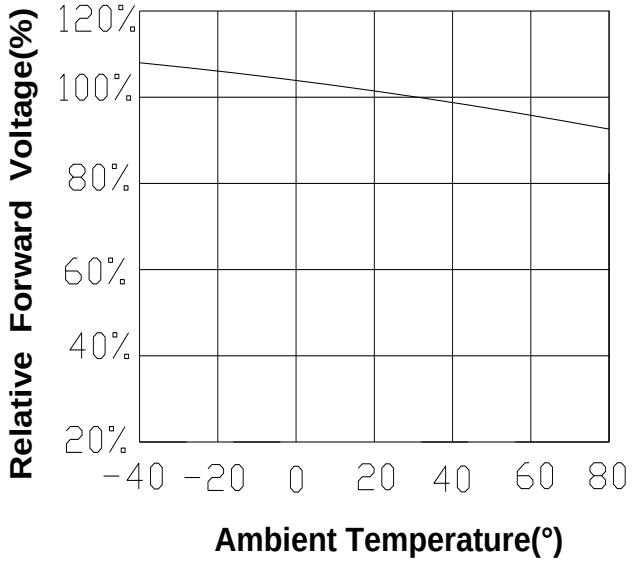
3). Relative Luminous Intensity-Ta



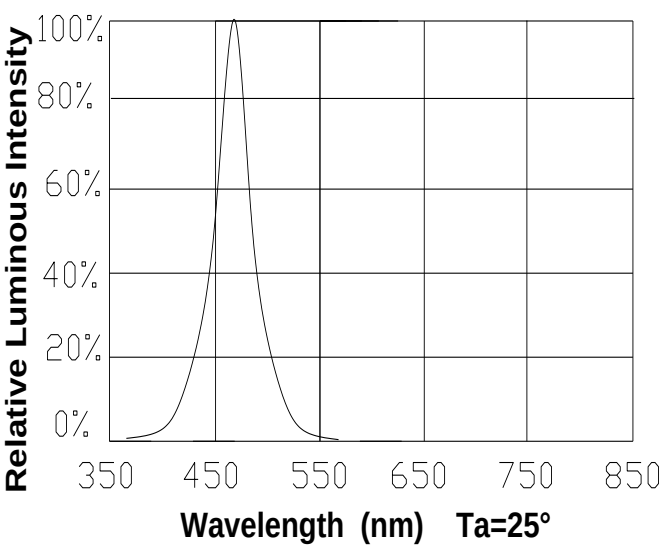
4). Forward Current I_F-Ta



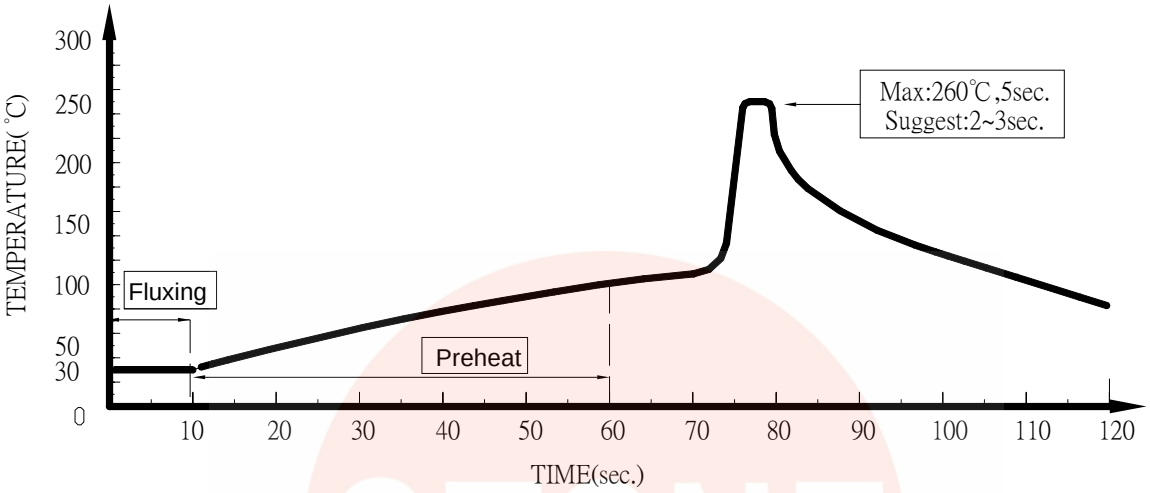
5). Forward Voltage-Ta



6). Wavelength Characteristics (Ta=25°C)



■ Dip Soldering



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature,especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temerature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

● IRON Soldering

A : Max : 350℃ Within 3 sec. One time only.

B : For 3mm LED without flange, if the LED epoxy lays flat on the PCB, the welding condition is 350℃ within 2 seconds, one time only.