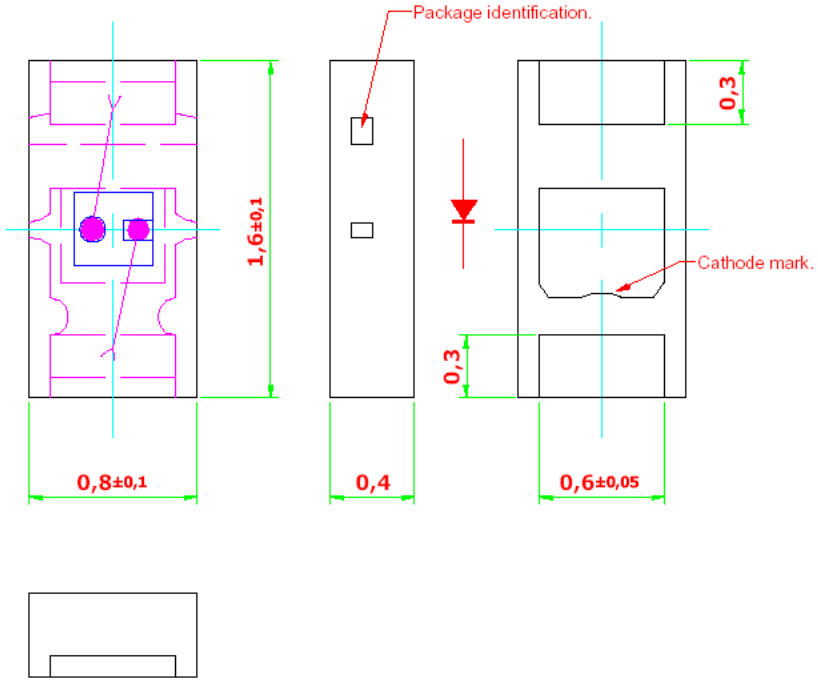
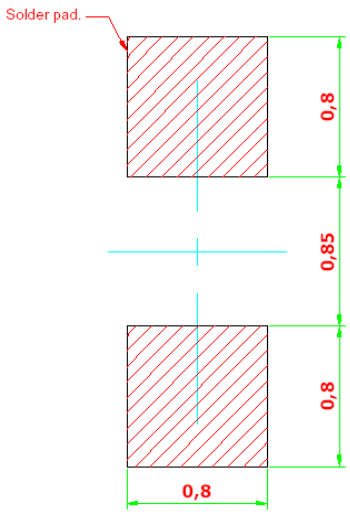
- **Feature:**
  1. High brightness surface mount LED.
  2. Wide viewing angle.
  3. Equivalent to 0603 package outline. Copper lead-frame construction.
  4. Qualified according to JEDEC moisture sensitivity Level 2.
  5. Compatible to IR reflow soldering.

- **Package Dimension:**



Recommended Solder Pad



Optical Characteristics:

Part Number	Color	Viewing Angle	Luminous Intensity @ If = 5mA Iv (mcd)
BL-SDB-DLD-C10 • BIN K1 • BIN K2 • BIN L1 • BIN L2	Blue (470 nm)	160	**7.2 ... 18.0** 7.2 ... 9.0 9.0 ... 11.2 11.2 ... 14.0 14.0 ... 18.0
BL-SDW-DLD-C10 • BIN N1 • BIN N2 • BIN P1 • BIN P2	White	160	**28.5 ... 71.5** 28.5 ... 35.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5

Note:

1. Other luminous intensity groups are also available upon request.
2. Luminous intensity is measured with an accuracy of ±11%.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

Absolute Maximum Ratings:

Parameter	Maximum Value	Unit
DC forward current.	20	mA
Peak pulse current. (tp ≤ 10 μs, Duty cycle = 0.005)	100	mA
Reverse voltage.	5	V
LED junction temperature.	100	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
Power dissipation (at room temperature)	60	mW

Material:

	Material
Lead-frame	Cu Alloy With NiPdAu Plating.
Package	High Temperature Resistant Epoxy Resin.

Vf Binning:

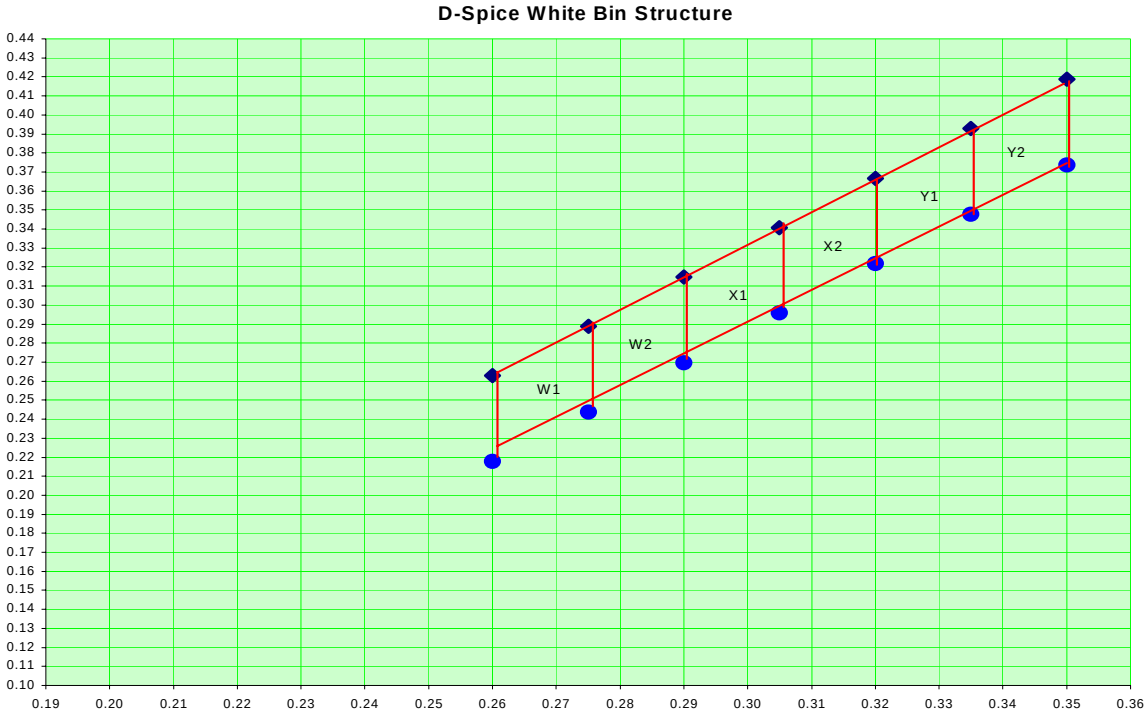
Vf Bin @ 5mA	Forward Voltage (V)
Standard	2.70 ... 3.10
10	2.70 ... 2.80
11	2.80 ... 2.90
12	2.90 ... 3.00
13	3.00 ... 3.10

Wavelength Grouping:

Color	Group	Wavelength distribution (nm) @ If = 5mA
BL-SDB; Blue	Full	464 - 476
	W	464 - 468
	X	468 - 472
	Y	472 – 476
	Z	476 – 480

Wavelength is measured with an accuracy of ±1 nm.

BL-SDW: White Chromaticity Coordinate Grouping



Chromaticity coordinate groups are measured with an accuracy of ±0.01.

Bin		1	2	3	4	Bin		1	2	3	4
W1	Cx	0.260	0.275	0.275	0.260	W2	Cx	0.275	0.290	0.290	0.275
	Cy	0.218	0.244	0.289	0.263		Cy	0.244	0.270	0.315	0.289
X1	Cx	0.290	0.305	0.305	0.290	X2	Cx	0.305	0.320	0.320	0.305
	Cy	0.270	0.296	0.341	0.315		Cy	0.296	0.322	0.367	0.341
Y1	Cx	0.320	0.335	0.335	0.320	Y2	Cx	0.335	0.350	0.350	0.335
	Cy	0.322	0.348	0.393	0.367		Cy	0.348	0.374	0.419	0.393

● Typical electro-optical characteristics curves:

Fig.1 Relative luminous intensity vs. forward current.

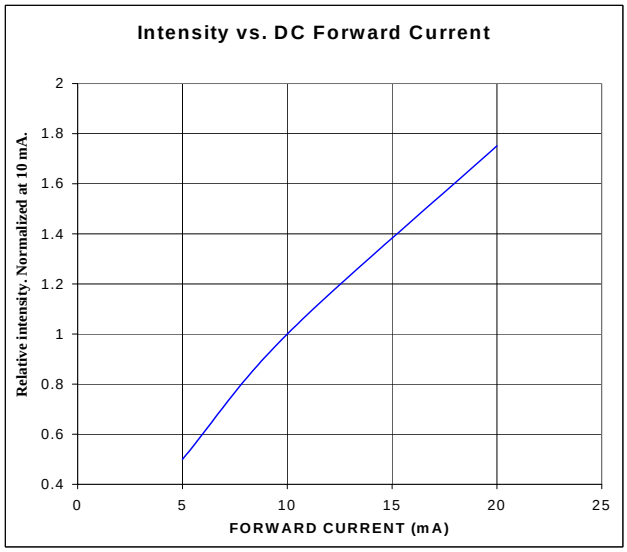


Fig.2 Forward current vs. forward voltage.

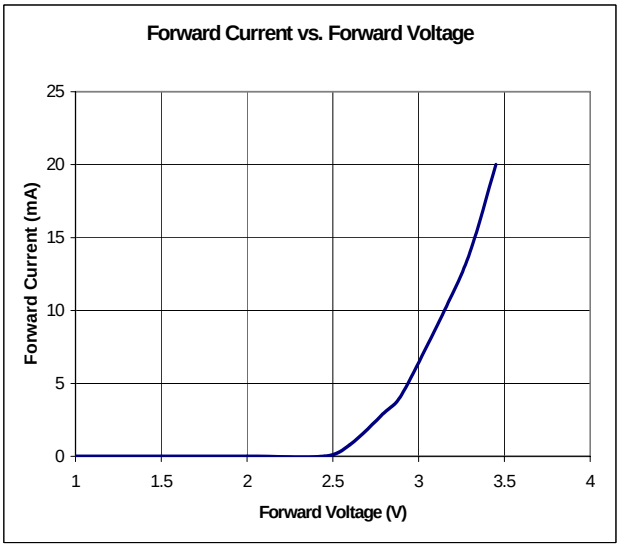


Fig.3 Color Spectrum

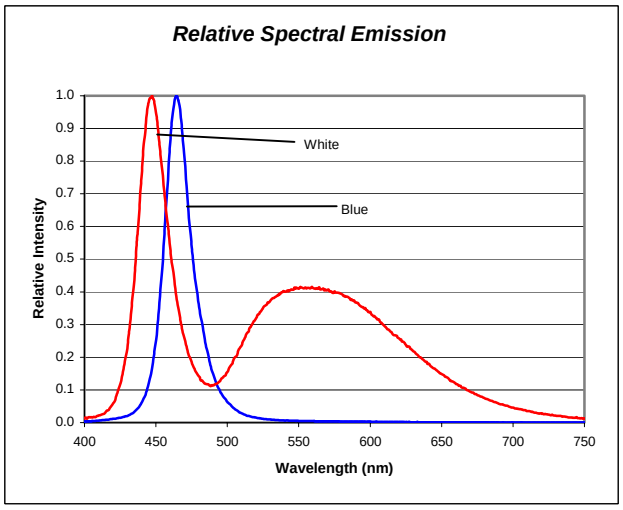


Fig.4 Maximum current vs. ambient temperature

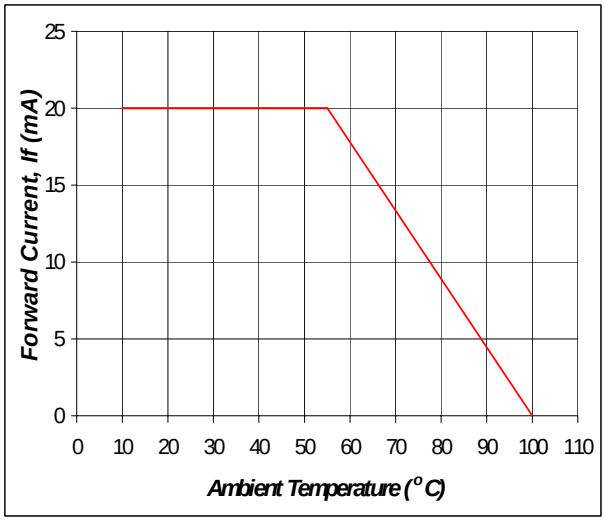
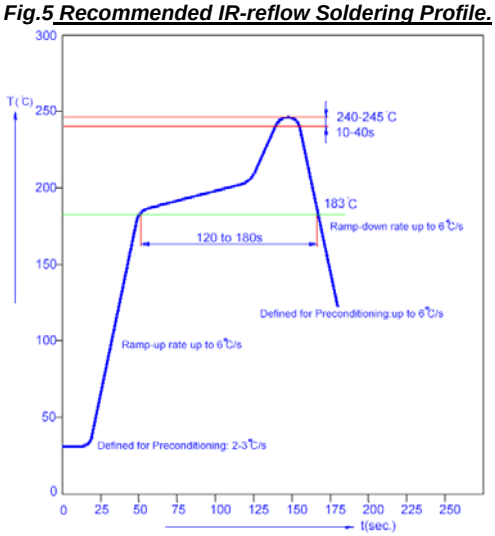


Fig.5 Recommended IR-reflow Soldering Profile.



- **Taping And Orientation:**

  Reels come in quantity of 3000 units.

  Reel diameter is 180 mm.