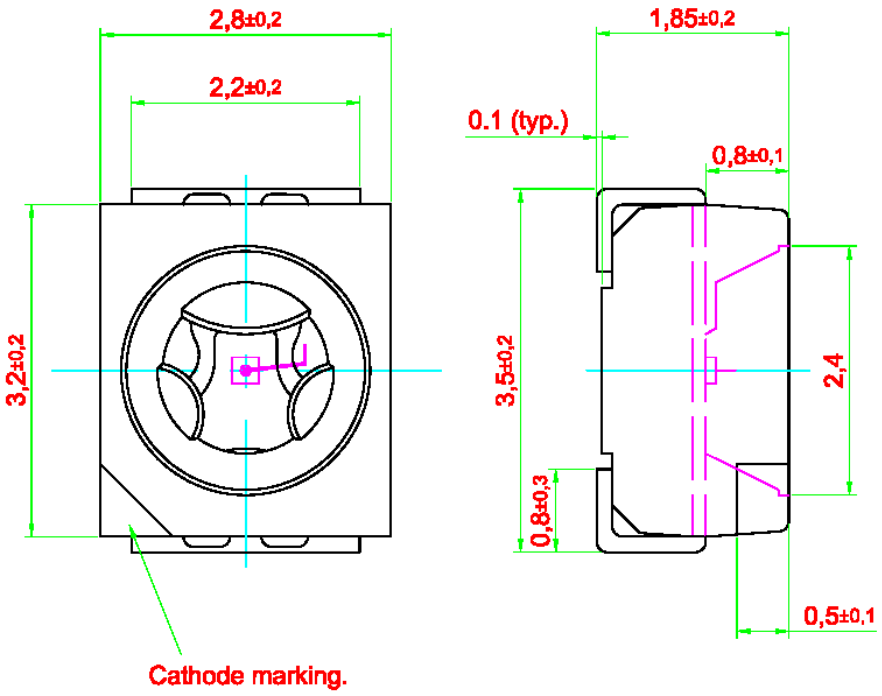
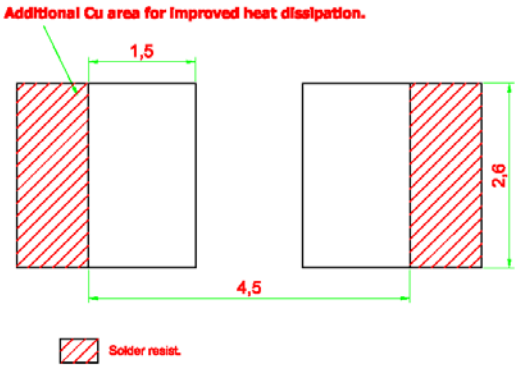
- **Feature:**
  1. High brightness surface mount LED.
  2. 120° viewing angle.
  3. Small package outline (LxWxH) of 2.8 x 3.2 x 1.8 mm.
  4. Qualified according to JEDEC moisture sensitivity Level 2.
  5. Compatible to both IR reflow soldering and TTW soldering.
  6. Pb Free/ RoHS Compliance

- **Package Dimension:**



Recommended Solder Pad



Optical Characteristics:

Part Number	Chip Technology / Color	Viewing Angle °	Luminous Intensity @ IF=20mA Iv (mcd)
BL-PDH-CJS-C10 • BIN P1 • BIN P2 • BIN Q1 • BIN Q2	**AlInGaP** Hyper-red, 640nm	**120**	**45.0 – 112.5** 45.0 – 56.0 56.0 – 71.5 71.5 – 90.0 90.0 – 112.5
BL-PDS-CJS-C10 • BIN Q1 • BIN Q2 • BIN R1 • BIN R2 **BL-PDS-SJS-C10** • BIN Q1 • BIN Q2 • BIN R1 • BIN R2	**AlInGaP** Super-red, 632nm	**120**	**71.5 – 180.0** 71.5 – 90.0 90.0 – 112.5 112.5 – 140.0 140.0 – 180.0 **71.5 – 180.0** 71.5 – 90.0 90.0 – 112.5 112.5 – 140.0 140.0 – 180.0
BL-PDR-CJS-C10 • BIN R1 • BIN R2 • BIN S1 • BIN S2 **BL-PDR-SJS-C10** • BIN R1 • BIN R2 • BIN S1 • BIN S2	**AlInGaP** Red, 625nm	**120**	**112.5 – 285.0** 112.5 – 140.0 140.0 – 180.0 180.0 – 224.0 224.0 – 285.0 **112.5 – 285.0** 112.5 – 140.0 140.0 – 180.0 180.0 – 224.0 224.0 – 285.0
BL-PDR-TJS-C10 • BIN T1 • BIN T2 • BIN U1 • BIN U2	**TS AlInGaP** Red, 625nm	**120**	**285.0 – 715.0** 285.0 – 355.0 355.0 – 450.0 450.0 – 560.0 560.0 – 715.0
BL-PDA-CJS-C10 • BIN R1 • BIN R2 • BIN S1 • BIN S2 **BL-PDA-SJS-C10** • BIN S1 • BIN S2 • BIN T1 • BIN T2	**AlInGaP** Amber, 615nm	**120**	**112.5 – 285.0** 112.5 – 140.0 140.0 – 180.0 180.0 – 224.0 224.0 – 285.0 **180.0 – 450.0** 180.0 – 224.0 224.0 – 285.0 285.0 – 355.0 355.0 – 450.0
BL-PDA-TJS-C10 • BIN T1 • BIN T2 • BIN U1 • BIN U2	**TS AlInGaP** Amber, 615nm	**120**	**285.0 – 715.0** 285.0 – 355.0 355.0 – 450.0 450.0 – 560.0 560.0 – 715.0

Part Number	Chip Technology / Color	Viewing Angle	Luminous Intensity @ IF=20mA Iv (mcd)
BL-PDO-CJS-C10 • BIN R1 • BIN R2 • BIN S1 • BIN S2 **BL-PDO-SJS-C10** • BIN S1 • BIN S2 • BIN T1 • BIN T2	**AlInGaP** Orange, 605nm	**120**	**112.5 – 285.0** 112.5 – 140.0 140.0 – 180.0 180.0 – 224.0 224.0 – 285.0 **180.0 – 450.0** 180.0 – 224.0 224.0 – 285.0 285.0 – 355.0 355.0 – 450.0
BL-PDY-CJS-C10 • BIN R1 • BIN R2 • BIN S1 • BIN S2 **BL-PDY-SJS-C10** • BIN S1 • BIN S2 • BIN T1 • BIN T2	**AlInGaP** Yellow, 587nm	**120**	**112.5 – 285.0** 112.5 – 140.0 140.0 – 180.0 180.0 – 224.0 224.0 – 285.0 **180.0 – 450.0** 180.0 – 224.0 224.0 – 285.0 285.0 – 355.0 355.0 – 450.0
BL-PDY-TJS-C10 • BIN T1 • BIN T2 • BIN U1 • BIN U2	**TS AlInGaP** Yellow, 590nm	**120**	**285.0 – 715.0** 285.0 – 355.0 355.0 – 450.0 450.0 – 560.0 560.0 – 715.0
BL-PDG-CJS-C10 • BIN P1 • BIN P2 • BIN Q1 • BIN Q2 **BL-PDG-SJS-C10** • BIN Q1 • BIN Q2 • BIN R1 • BIN R2	**AlInGaP** Green, 572nm	**120**	**45.0 – 112.5** 45.0 – 56.0 56.0 – 71.5 71.5 – 90.0 90.0 – 112.5 **71.5 – 180.0** 71.5 – 90.0 90.0 – 112.5 112.5 – 140.0 140.0 – 180.0

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.
4. An optional Vf binning is also available upon request. Binning scheme is as per following table.

- **Absolute Maximum Ratings:**

Parameter	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current; (tp ≤ 10 μs, Duty cycle = 0.005)	1000	mA
Reverse voltage.	5	V
LED junction temperature.	125	°C
Operating temperature.	-40 … +100	°C
Storage temperature.	-40 … +100	°C
Power dissipation (at room temperature)	75	mW

- **Vf Binning:**

Vf Bin @ 20mA	Forward Voltage (V)
Standard	1.55 … 2.45 (max)
01	1.55 … 1.85
02	1.85 … 2.15
03	2.15 … 2.45
04	2.45 … 2.75

Forward voltage, Vf is measured with an accuracy of ±0.1 V.

- **Wavelength Grouping:**

Color	Group	Wavelength distribution (nm)
BL-PDH; Hyper-red	Full	636 - 646
BL-PDS; Super-red	Full	625 – 640
BL-PDR-CJ, -SJ; Red (AS)	Full	620 – 630
BL-PDR-TJ; Red (TS)	Full	620 - 635
BL-PDA; Amber	Full	610 – 621
	W	610 – 615
	X	615 – 621
BL-PDO; Orange	Full	600 – 612
	W	600 – 603
	X	603 – 606
	Y	606 - 609
	Z	609 - 612
BL-PDY; Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 594
BL-PDG; Green	Full	564.5 – 576.5
	W	564.5 – 567.5
	X	567.5 – 570.5
	Y	570.5 – 573.5
	Z	573.5 – 576.5

Wavelength is measured with an accuracy of ±1 nm.

● Typical electro-optical characteristics curves:

Fig.1 Relative luminous intensity vs. forward current.

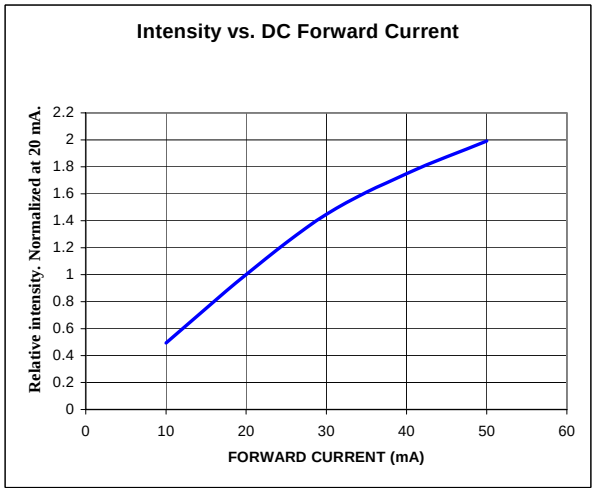


Fig.2 Forward current vs. forward voltage.

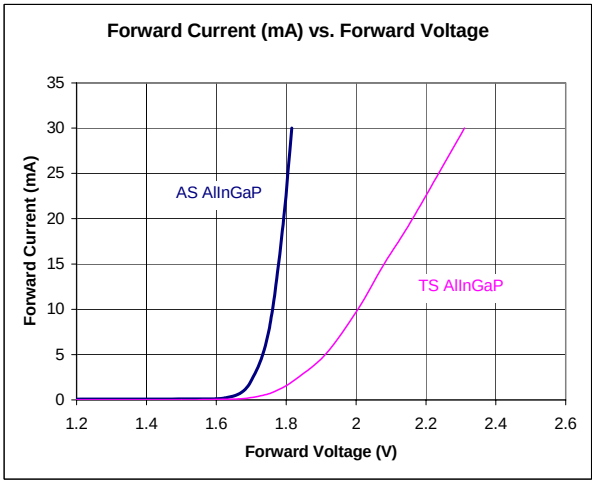


Fig.3 Radiation pattern.

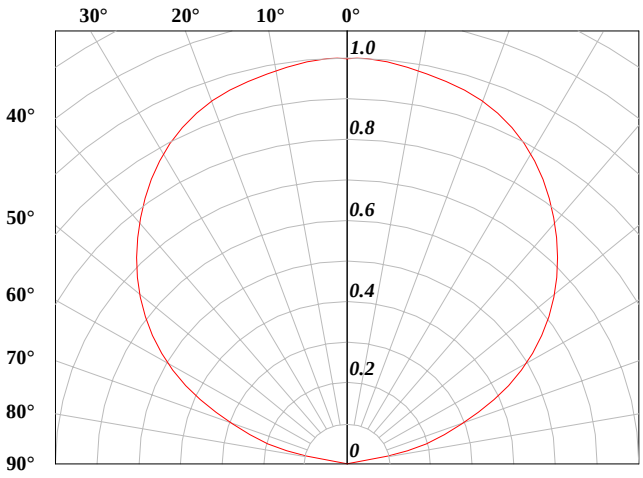


Fig.4 Maximum forward current vs. temperature.

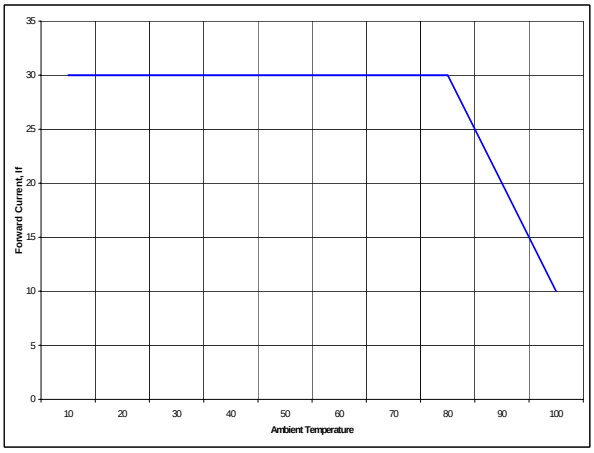


Fig.5 Relative Intensity vs. Wavelength

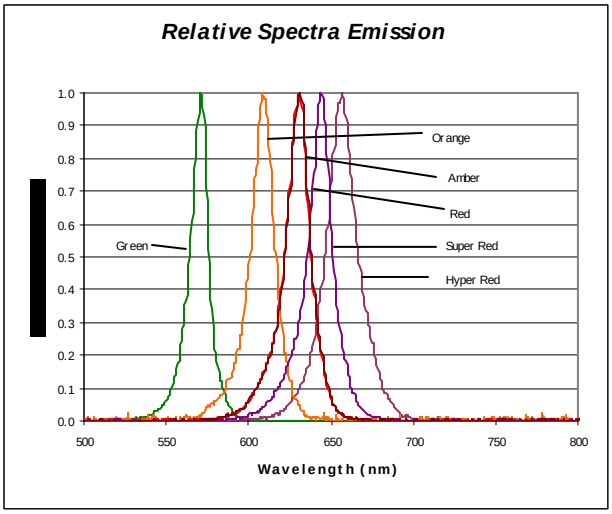


Fig.6 Recommended IR-reflow Soldering Profile (acc. to IPC 9501).

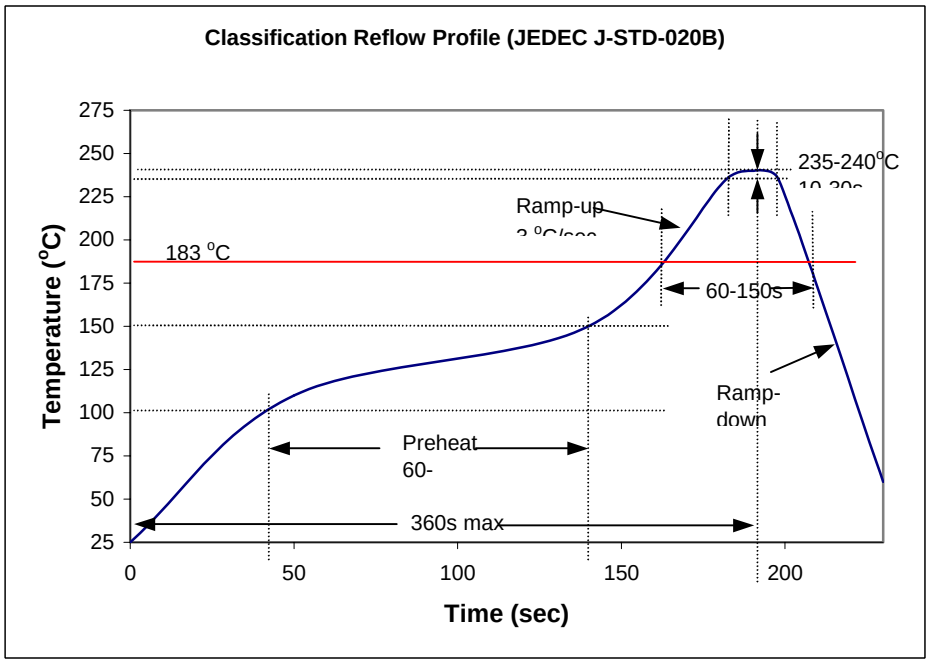
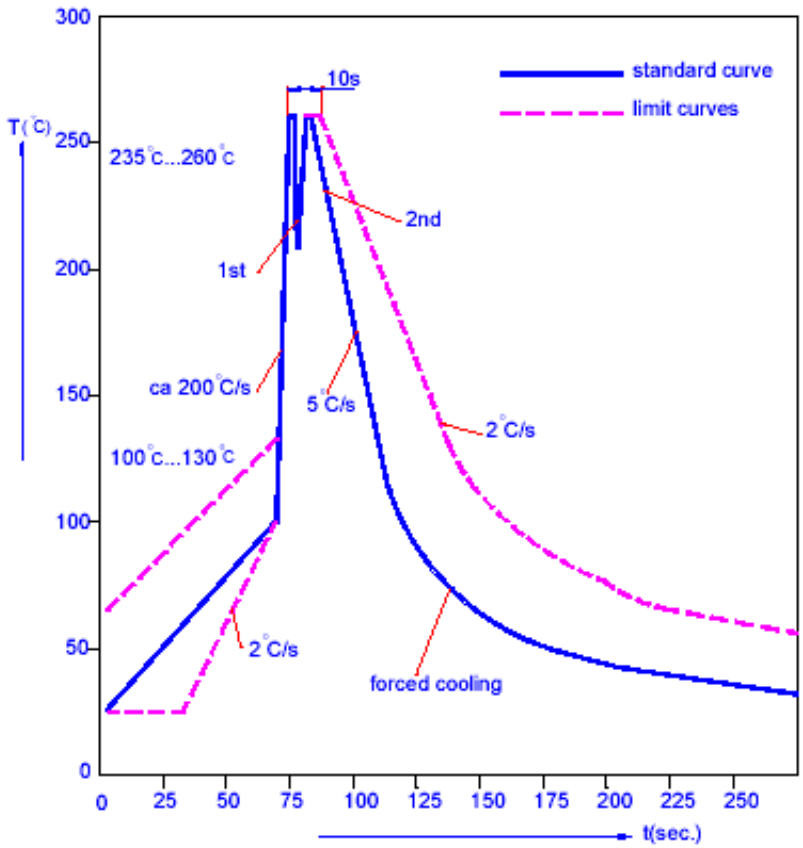


Fig.7 Recommended TTW Soldering Profile (acc. to CECC 00802).



- **Taping And Orientation:**

Reels come in quantity of 8000 units or 2000 units.

Reel diameters are 330 mm and 180 mm respectively

