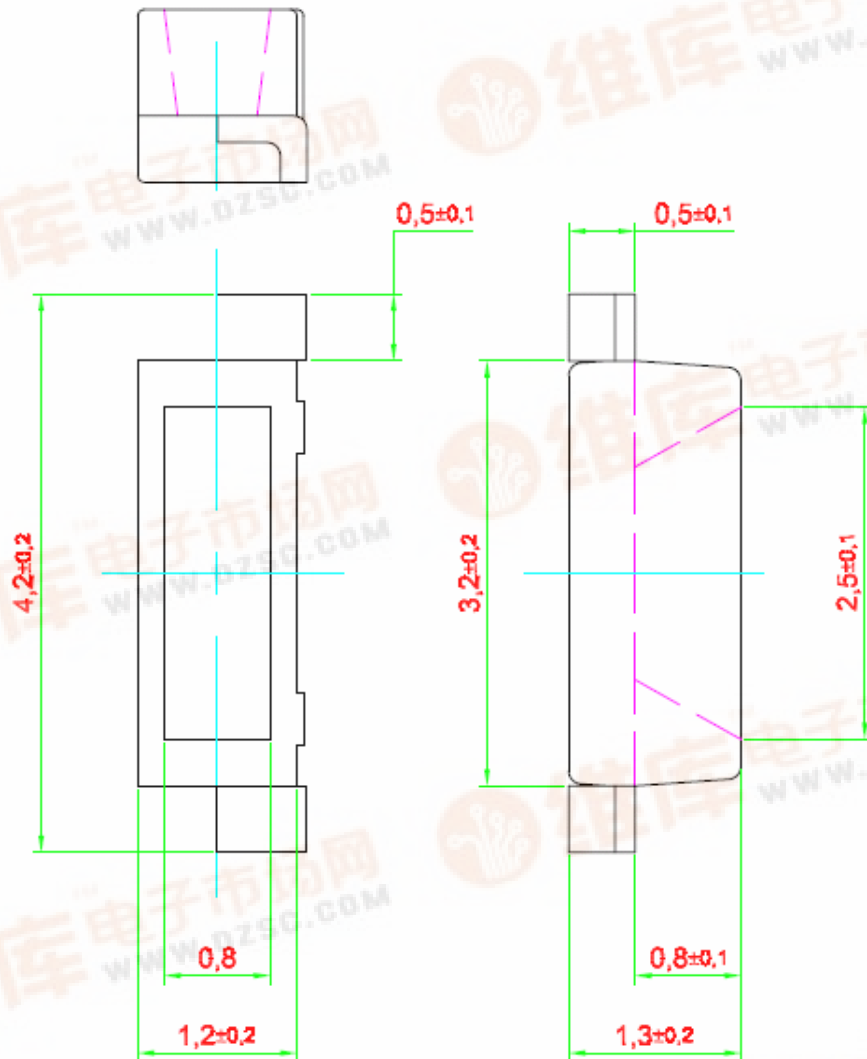




- High brightness surface mount LED.
- Designed for sideways illumination.
- Small package outline.
- Qualified according to JEDEC moisture sensitivity Level 2.
- Compatible to both IR reflow soldering and TTW soldering.





Part Ordering Number	Chip Technology Color	λ_{dom} (nm)	Luminous Intensity @ If = 20mA lv (mcd)
	AlInGaP / Super-red, 632 nm	120	45.0 ... 112.5 45.0 ... 56.0 56.0 ... 71.5 71.5 ... 90.0 90.0 ... 112.5
	AlInGaP / Red, 625 nm	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 71.5 ... 180.0 71.5 ... 90.0 90.0 ... 112.5 112.5 ... 140.0 140.0 ... 180.0
	TS AlInGaP / Red, 625 nm		180.0 ... 450.0 180.0 ... 224.0 224.0 ... 285.0 285.0 ... 355.0 355.0 ... 450.0
	AlInGaP / Amber, 615 nm	120	71.5 ... 180.0 71.5 ... 90.0 90.0 ... 112.5 112.5 ... 140.0 140.0 ... 180.0 112.5 ... 285.0 112.5 ... 140.0 140.0 ... 180.0 180.0 ... 224.0 224.0 ... 285.0



Part Ordering Number	Chip Technology Color	λ_{dom} (nm)	Luminous Intensity @ If = 20mA lv (mcd)
	AlInGaP / Orange, 605 nm	120	71.5 ... 180.0 71.5 ... 90.0 90.0 ... 112.5 112.5 ... 140.0 140.0 ... 180.0 112.5 ... 285.0 112.5 ... 140.0 140.0 ... 180.0 180.0 ... 224.0 224.0 ... 285.0
	AlInGaP / Yellow, 587 nm	120	71.5 ... 180.0 71.5 ... 90.0 90.0 ... 112.5 112.5 ... 140.0 140.0 ... 180.0 112.5 ... 285.0 112.5 ... 140.0 140.0 ... 180.0 180.0 ... 224.0 224.0 ... 285.0
	AlInGaP / Green, 572 nm	120	45.0 ... 90.0 45.0 ... 56.0 56.0 ... 71.5 71.5 ... 90.0 90.0 ... 112.5

NOTE:

1. All part number above comes in a standard quantity of 2500 units per reel.
2. Other luminous intensity groups are also available upon request.
3. Luminous intensity is measured with an accuracy of $\pm 11\%$.
4. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
5. Vf binning is optional. Vf binning scheme is as per the following table. Please contact marketing for special part number.

**Wavelength Grouping.**

Color	Group	Wavelength distribution (nm)
BL-PSS; Super Red	Full	625 - 640
BL-PSR-CS, -SS; Red (AS)	Full	620 – 630
BL-PSR-TS; Red (TS)		620 - 635
BL-PSA; Amber	Full	610 – 621
	W	610 – 615
	X	615 – 621
BL-PSO; Orange	Full	600 – 612
	W	600 – 603
	X	603 – 606
	Y	606 - 609
	Z	609 - 612
BL-PSY; Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594
BL-PSG; 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

Dominant wavelength is measured with an accuracy of ± 1 nm.

Vf Binning (Optional).

Vf Bin @ 20mA	Forward voltage (V)
01	1.55 ... 1.85
02	1.85 ... 2.15
03	2.15 ... 2.45
04	2.45 ... 2.75

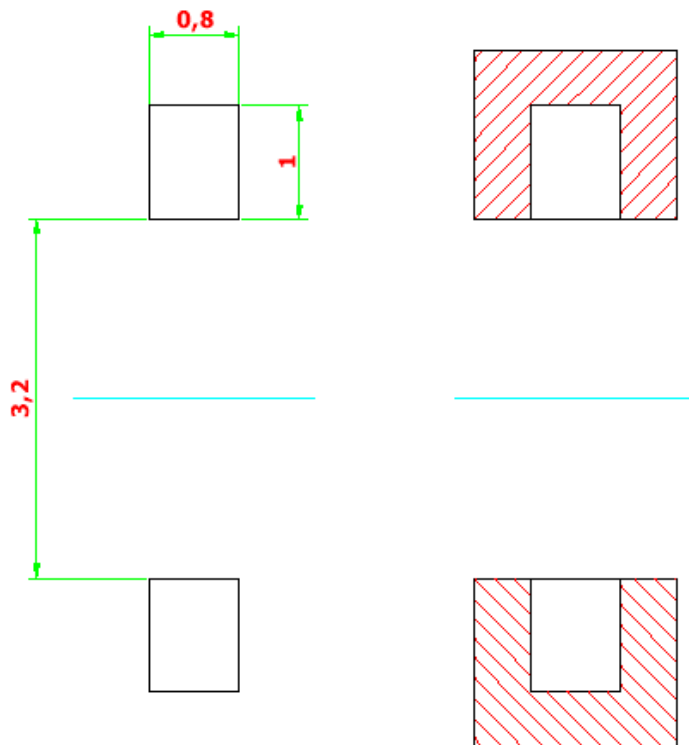
Forward voltage, Vf is measured with an accuracy of ± 0.1 V.



Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	20	mA
Peak pulse current; ($t_p \leq 10 \mu s$, Duty cycle = 0.005)	200	mA
Reverse voltage.	12	V
ESD Threshold; HBM	2000	V
LED junction temperature.	125	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
Power dissipation (at room temperature)	50	mW

Recommended Solder Pad



**Pad design for better
heat dissipation.**

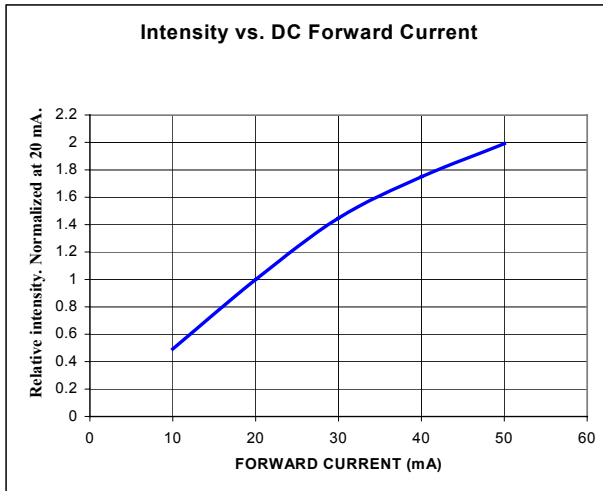
 **Solder resist.**



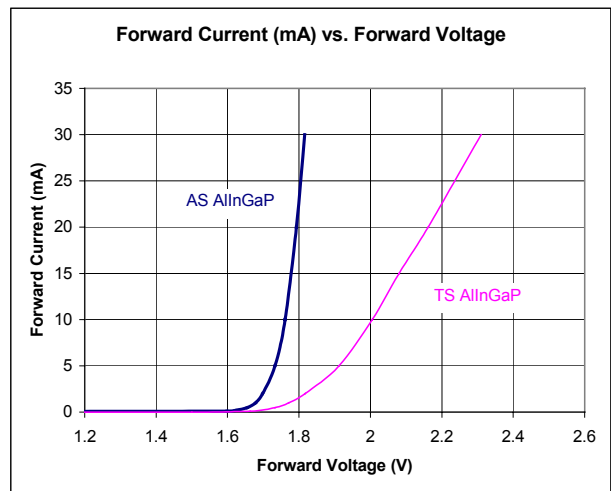
AMERICAN BRIGHT OPTOELECTRONICS CORP.

Preliminary

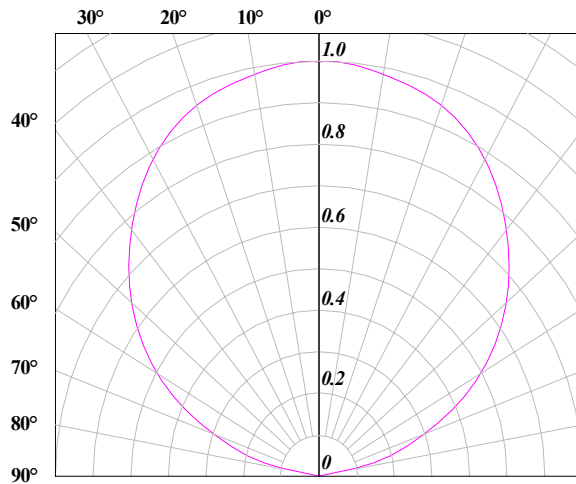
Relative luminous intensity vs. forward current.



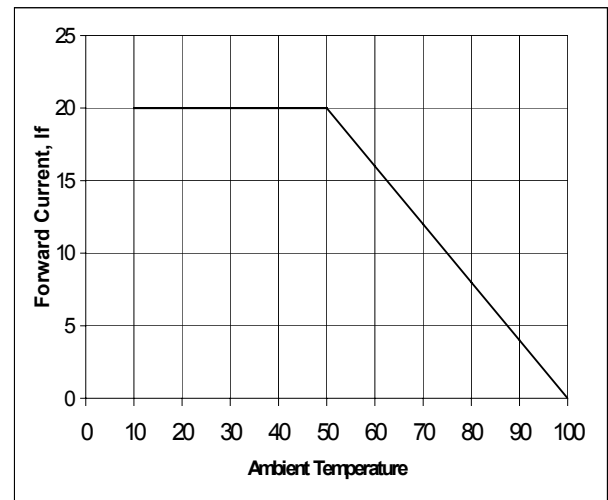
Forward current vs. forward voltage.



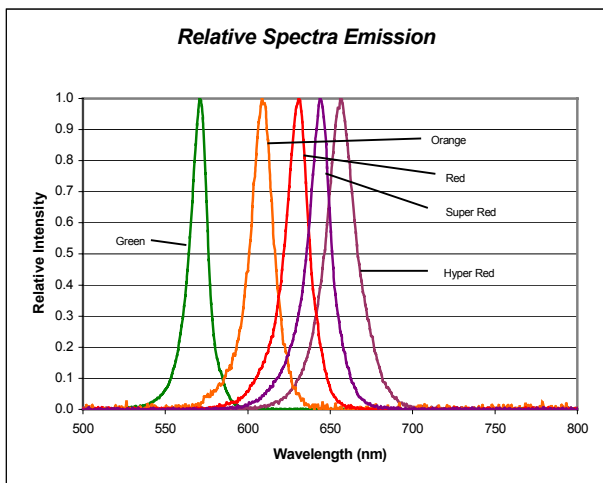
Radiation pattern.



Maximum current vs. ambient temperature



Relative Intensity vs. Wavelength

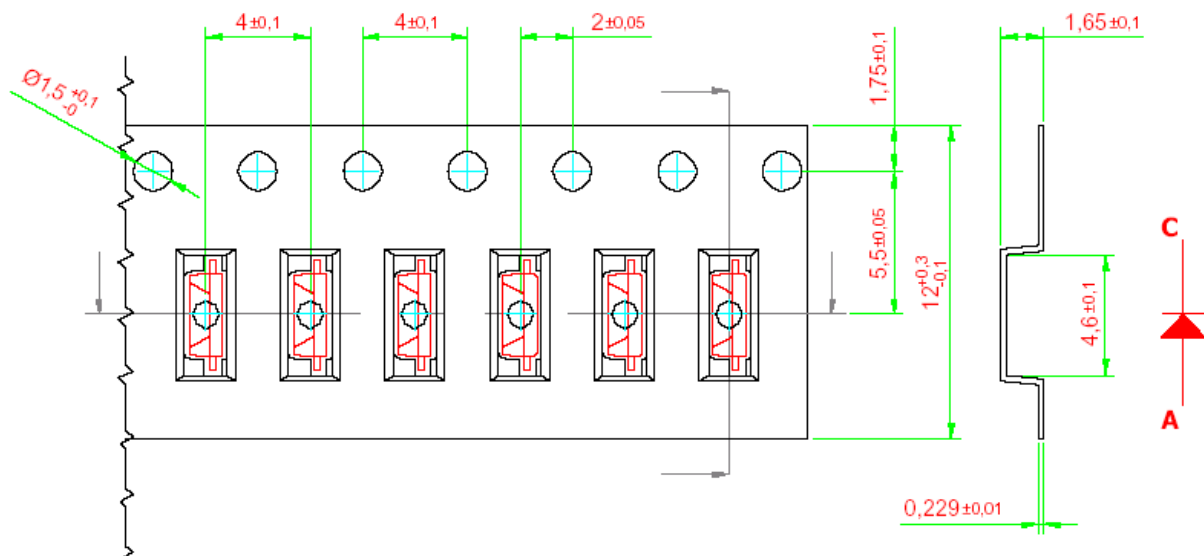




Taping And Orientation.

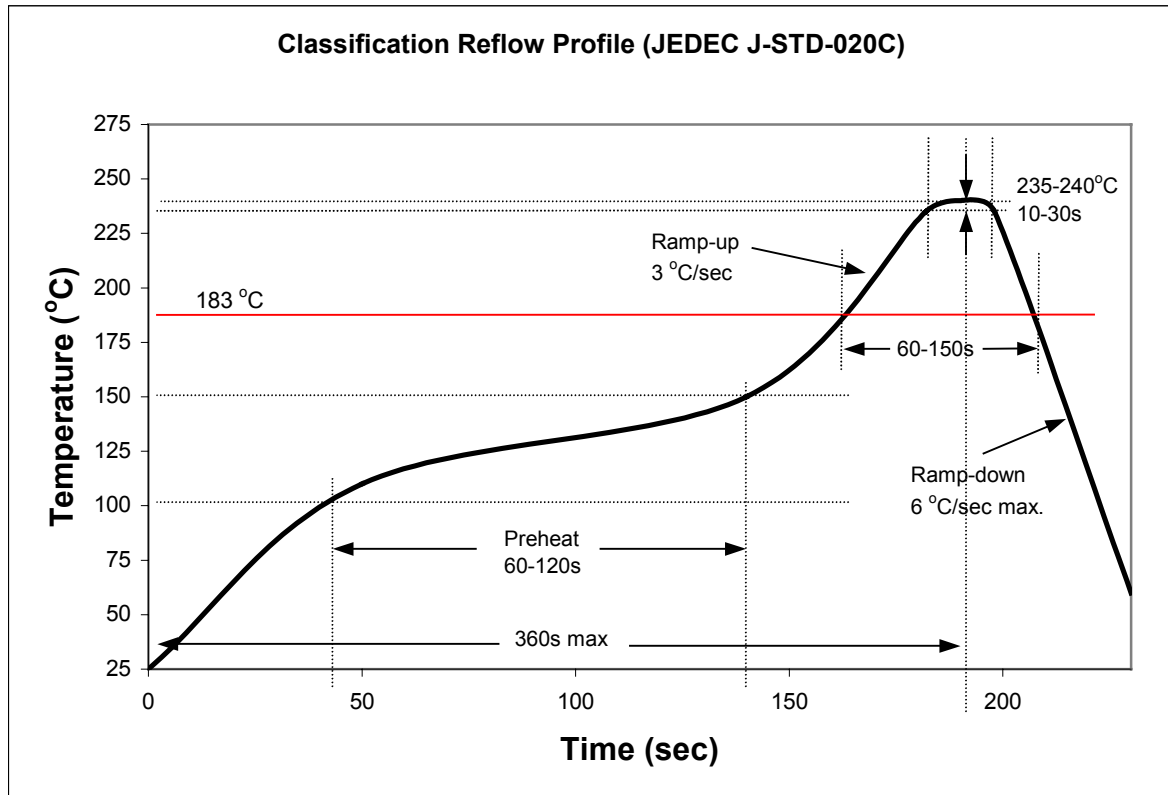
Reels come in quantity of 2500 units.

Reel diameter is 180 mm.





Recommended Sn-Pb IR-Reflow Soldering Profile.



Recommended Pb Free IR-Reflow Soldering Profile.

