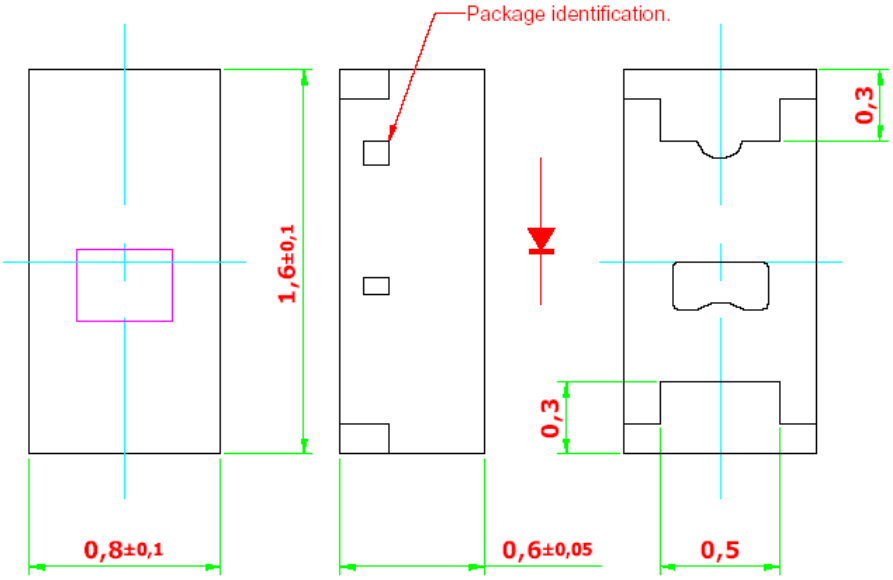
Surface Mount AlInGaP Spice LED : SSx-CLD



Note: The center pad is a common cathode. Please take care during soldering to avoid shorting.

- High brightness diffused surface mount LED.
- Super wide viewing angle of 160°.
- Equivalent to 0603 package outline. Copper lead-frame construction.
- Qualified according to JEDEC moisture sensitivity Level 2.
- Compatible to IR reflow soldering.

Part Ordering Number	Chip Technology / Color	Viewing Angle	Luminous Intensity @ **If = 20mA,** Iv (mcd)
SSS-CLD-N2P-1 • SSS-CLD-N2 • SSS-CLD-P1 • SSS-CLD-P2	AlInGaP / Super Red	160	**35.5 … 71.5** 35.5 … 45.0 45.0 … 56.0 56.0 … 71.5
SSR-CLD-PQ1-1 • SSR-CLD-P1 • SSR-CLD-P2 • SSR-CLD-Q1	AlInGaP / Red	160	**45.0 … 90.0** 45.0 … 56.0 56.0 … 71.5 71.5 … 90.0
SSO-CLD-P2Q-1 • SSO-CLD-P2 • SSO-CLD-Q1 • SSO-CLD-Q2 **SSO-CLD-QR1-1** • SSO-CLD-Q1 • SSO-CLD-Q2 • SSO-CLD-R1	AlInGaP / Orange	160	**56.0 … 112.5** 56.0 … 71.5 71.5 … 90.0 90.0 … 112.5 **71.5 … 140.0** 71.5 … 90.0 91.0 … 112.5 112.5 … 140.0
SSY-CLD-P2Q-1 • SSY-CLD-P2 • SSY-CLD-Q1 • SSY-CLD-Q2	AlInGaP / Yellow	160	**56.0 … 112.5** 56.0 … 71.5 71.5 … 90.0 90.0 … 112.5
SSG-CLD-M2N-1 • SSG-CLD-M2 • SSG-CLD-N1 • SSG-CLD-N2	AlInGaP / Green	160	**22.4 … 45.0** 22.4 … 28.5 28.5 … 35.5 35.5 … 45.0
SSP-CLD-KL1-1 • SSP-CLD-K1 • SSP-CLD-K2 • SSP-CLD-L1	AlInGaP / Pure Green	160	**7.2 … 14.0** 7.2 … 9.0 9.0 … 11.2 11.2 … 14.0

NOTE:

1. All part number above comes in a standard quantity of 3000 units per reel.
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.

Wavelength Grouping.

Color	Group	Wavelength distribution (nm)
SSS, Super Red	Full	625 – 640
SSR; Red	Full	620 – 630
SSO; Orange	Full	600 – 612
	W	600 – 603
	X	603 – 606
	Y	606 - 609
	Z	609 - 612
SSY; Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 594
SSG; 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
SSP; Pure Green	Full	552.5 – 564.5
	W	552.5 – 555.5
	X	555.5 – 558.5
	Y	558.5 – 561.5
	Z	561.5 – 564.5

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

Electrical Characteristics at Ta=25°C.

Vf @ If = 20 mA			Vr @ Ir = 10uA
Minimum (V)	Typical (V)	Maximum (V)	Min.(V)
1.8	2.0	2.4	12

Vf is measured with an accuracy of ±0.1 V.

Absolute Maximum Ratings

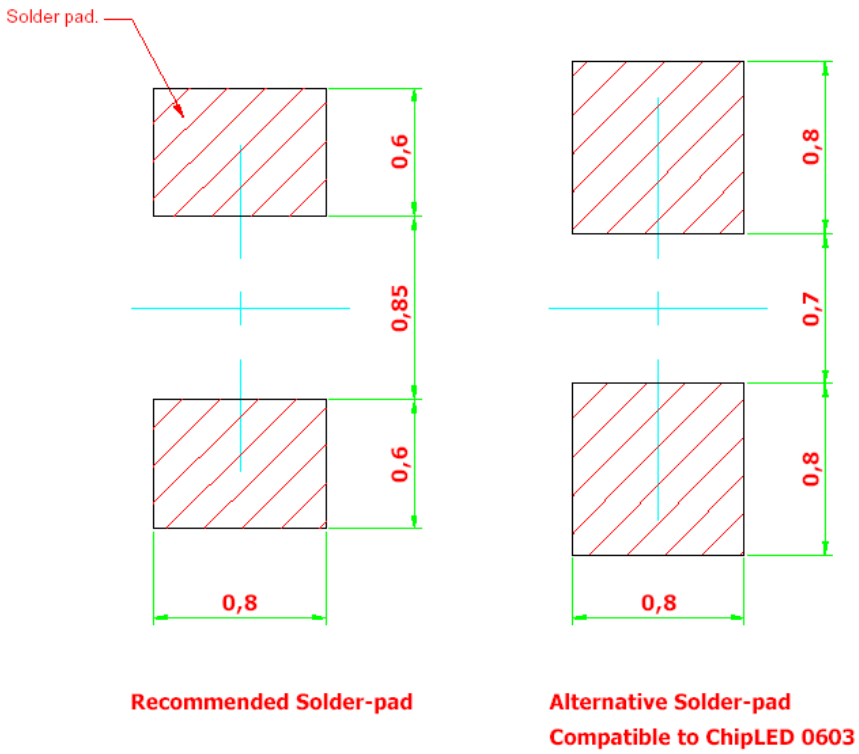
	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current. (tp ≤ 10 μs, Duty cycle = 0.1)	250	mA
Reverse voltage.	12	V
LED junction temperature.	110	°C
Operating temperature.	-40 … +100	°C
Storage temperature.	-40 … +100	°C
Power dissipation (at room temperature)	80	mW

Material

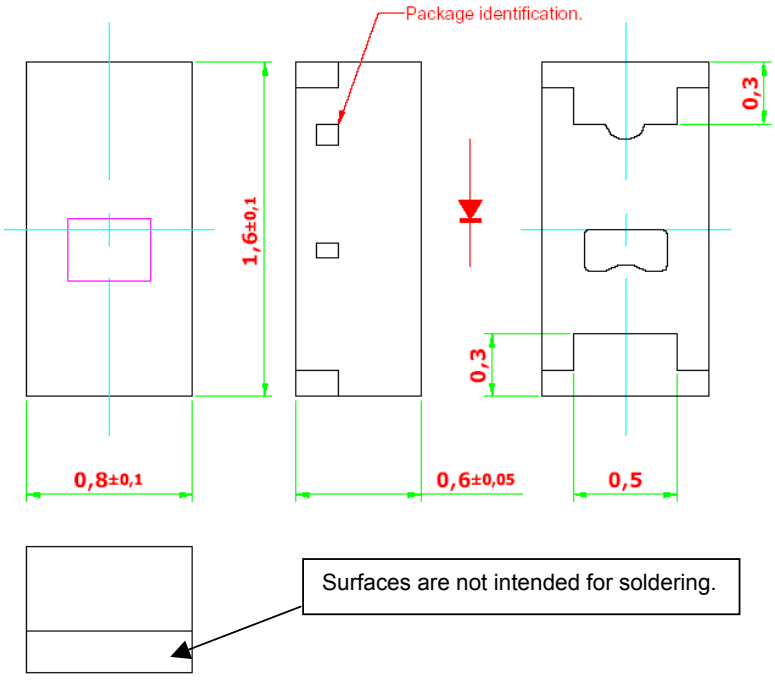
	Material
Lead-frame.	Cu Alloy With NiPdAu Plating.
Package.	High Temperature Resistant Epoxy Resin.

Note: Product is Pb free.

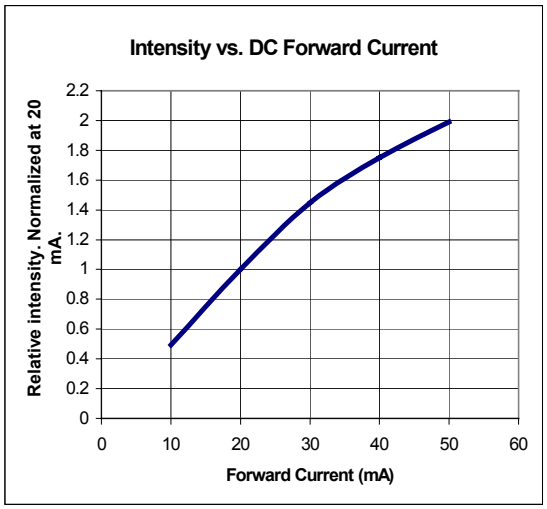
Recommended Solder Pad



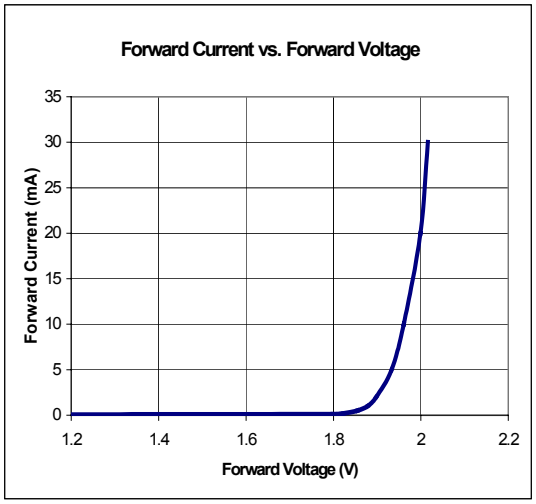
Note: Component is based on a new package platform, which features “Bottom Only Terminations”. Solder joints are only formed at the bottom of the component and solder fillet will not be observable as the sides of the component are not solderable.



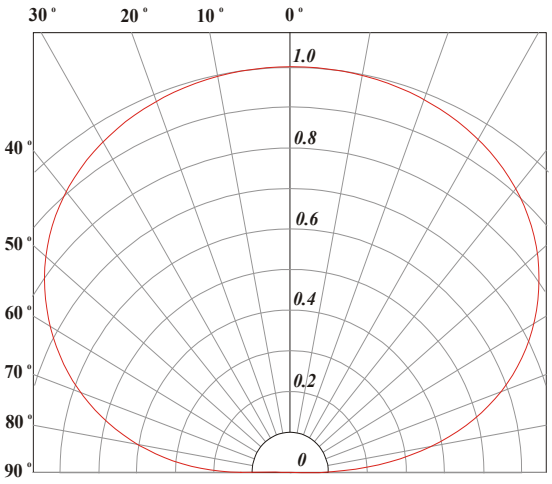
Relative intensity vs. forward current.



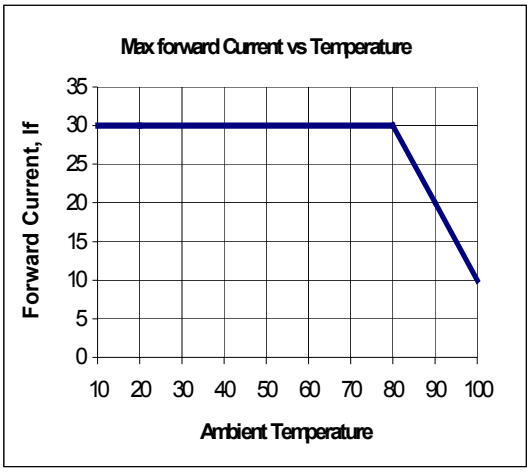
Forward current vs. forward voltage.



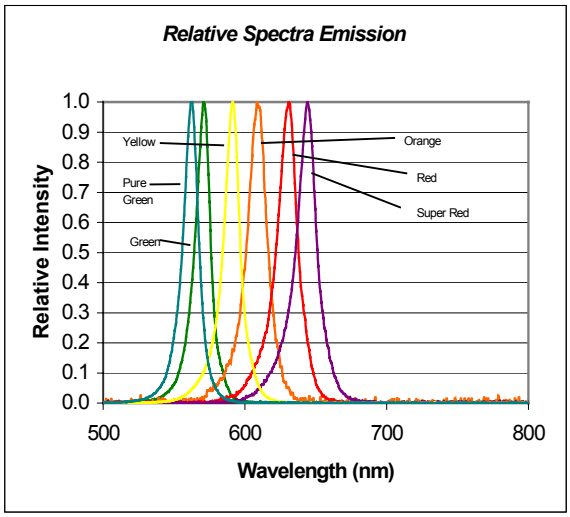
Radiation pattern.



Maximum current vs. ambient temperature.



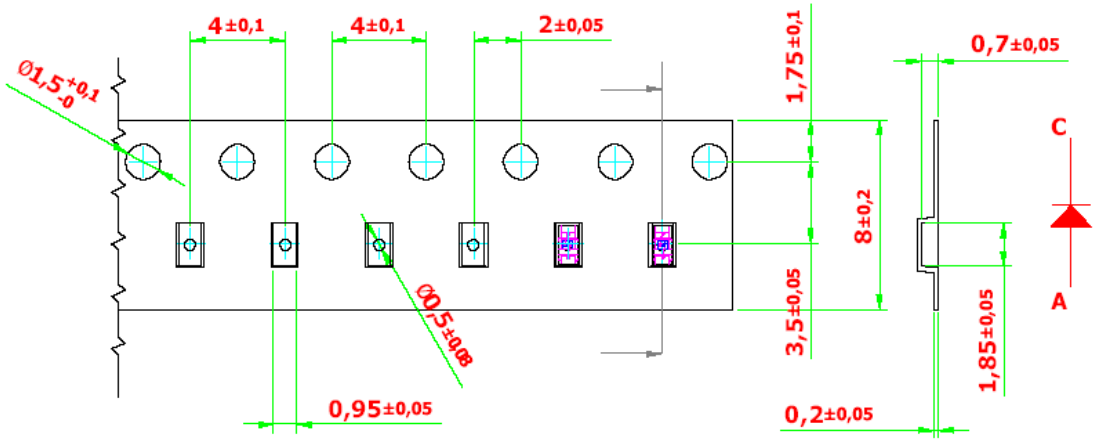
Relative Intensity vs. Wavelength



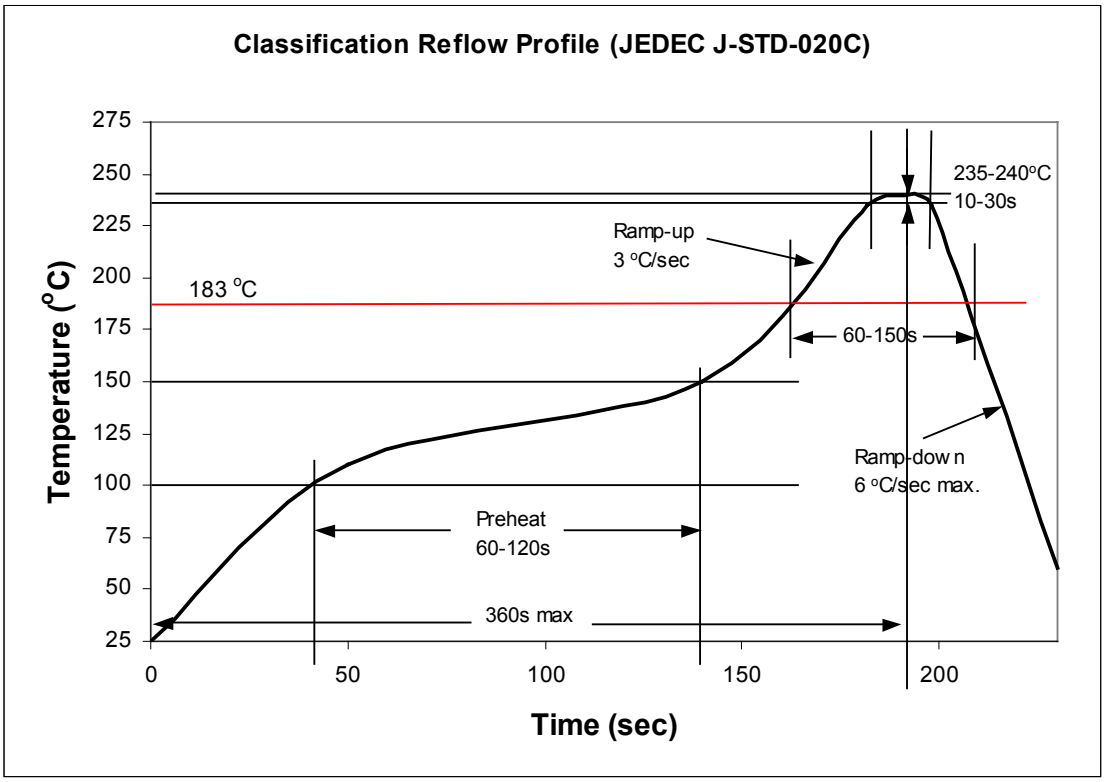
Taping And Orientation.

Reels come in quantity of 3000 units.

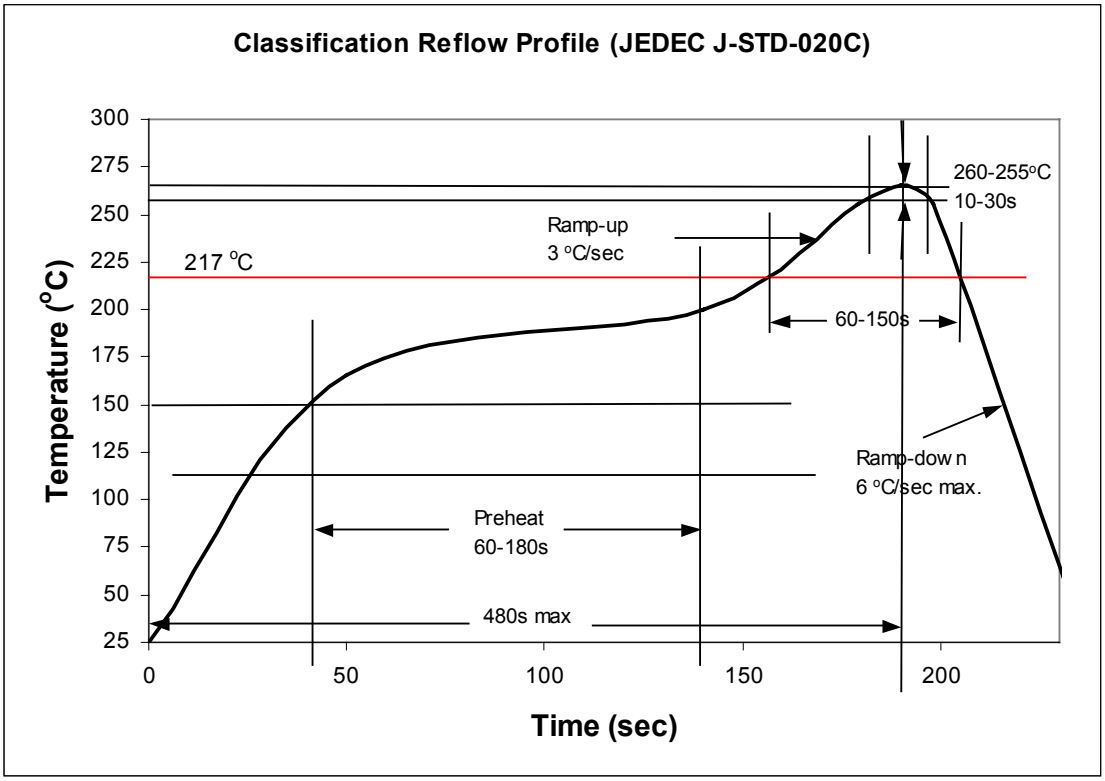
Reel diameter is 180 mm.



Recommended Sn-Pb IR-Reflow Soldering Profile.



Recommended Pb Free IR-Reflow Soldering Profile.



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