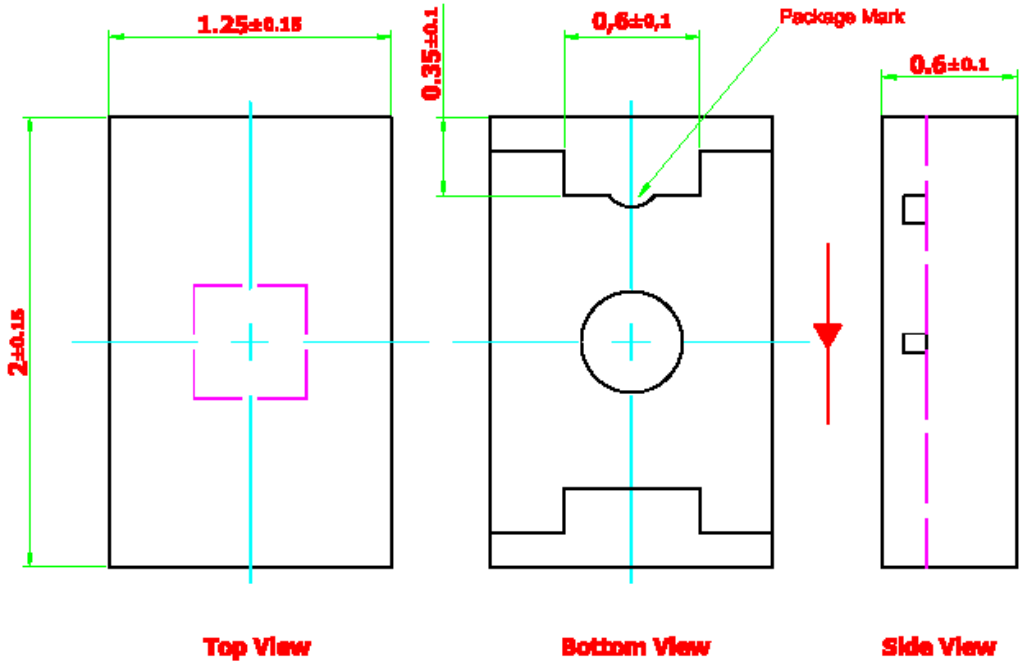
Engineering reference data are not verified. The specifications are subject to change without notice.

SMT 0805 AlInGaP MSpice: SMx-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 0805 package outline. Copper lead-frame construction.
- Qualified according to JEDEC moisture sensitivity Level 2.
- Compatible to IR reflow soldering.

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Part Ordering Number	Chip Technology / Color	Viewing Angle	Luminous Intensity @ **If = 20mA,** Iv (mcd)
SMS-CLD-N2P-1 • SMS-CLD-N2 • SMS-CLD-P1 • SMS-CLD-P2	AlInGaP / Super Red	160	**35.5 … 71.5** 35.5 … 45.0 45.0 … 56.0 56.0 … 71.5
SMR-CLD-PQ1-1 • SMR-CLD-P1 • SMR-CLD-P2 • SMR-CLD-Q1	AlInGaP / Red	160	**45.0 … 90.0** 45.0 … 56.0 56.0 … 71.5 71.5 … 90.0
SMO-CLD-P2Q-1 • SMO-CLD-P2 • SMO-CLD-Q1 • SMO-CLD-Q2	AlInGaP / Orange	160	**56.0 … 112.5** 56.0 … 71.5 71.5 … 90.0 90.0 … 112.5
SMY-CLD-P2Q-1 • SMY-CLD-P2 • SMY-CLD-Q1 • SMY-CLD-Q2	AlInGaP / Yellow	160	**56.0 … 112.5** 56.0 … 71.5 71.5 … 90.0 90.0 … 112.5
SMG-CLD-M2N-1 • SMG-CLD-M2 • SMG-CLD-N1 • SMG-CLD-N2	AlInGaP / Green	160	**22.4 … 45.0** 22.4 … 28.5 28.5 … 35.5 35.5 … 45.0

NOTE:

1. All part number above comes in a standard quantity of 3000 units per reel.
2. Other luminous intensity groups are also available upon request.
3. Luminous intensity is measured with an accuracy of ±11%.
4. All optical and electrical data are measured at 25°C.
5. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

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Electrical Characteristics.

(Ta = 25°C)

	Vf @ If= 20 mA		Vr @ Ir =10uA
Part Number	Typ. (V)	Max. (V)	Min.(V)
All devices	1.8	2.4	12

Forward voltages are tested using a current pulse of 1 ms and has an accuracy of ± 0.1V.

Wavelength Grouping.

Color	Group	Wavelength distribution (nm)
SMS, Super Red	Full	625 – 640
SMR; Red	Full	620 – 630
SMO; Orange	Full	600 – 612
	W	600 – 603
	X	603 – 606
	Y	606 - 609
	Z	609 - 612
SMY; Yellow	Full	582 – 594
	W	582 – 585
	X	585 – 588
	Y	588 - 591
	Z	591 - 594
SMG; 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.

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Absolute Maximum Ratings

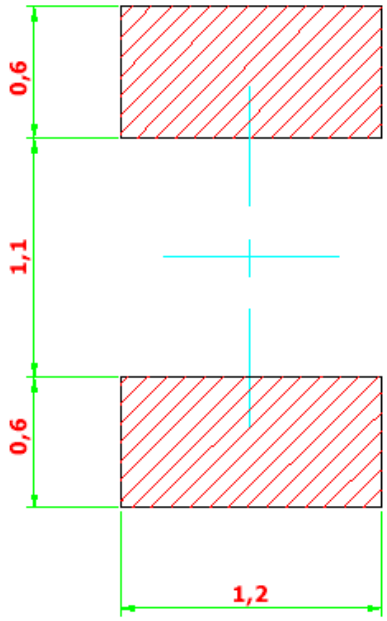
	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current. (tp ≤ 10 μs, Duty cycle = 0.1)	250	mA
Reverse voltage.	12	V
LED junction temperature.	110	°C
Operating temperature.	-40 … +105	°C
Storage temperature.	-40 … +105	°C
Power dissipation (at room temperature)	72	mW

Material

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

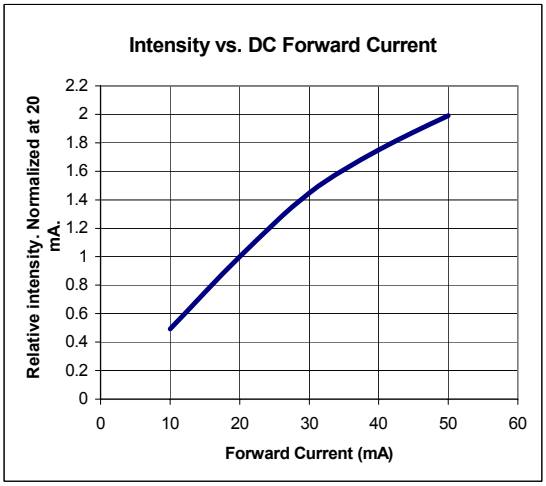
Note: Product is Pb free.

Recommended Solder Pad

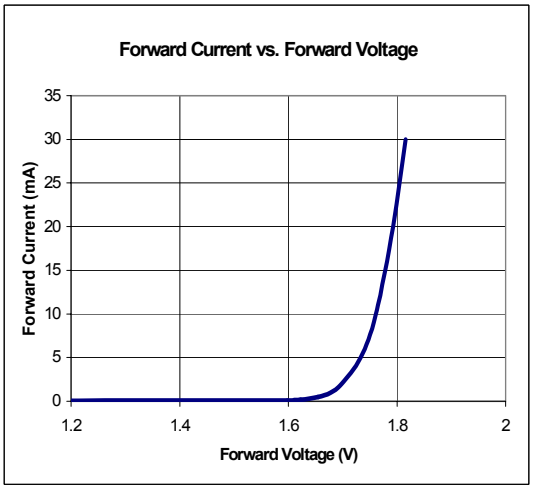


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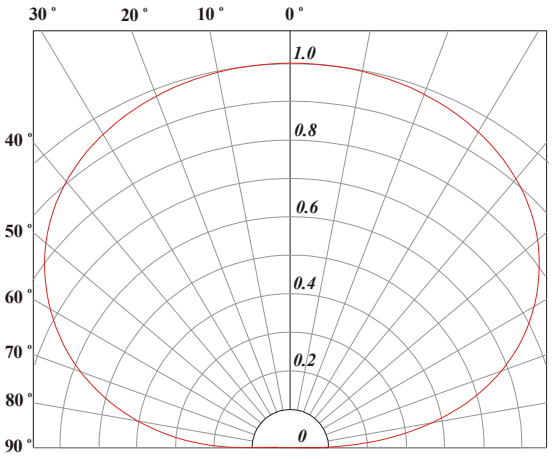
Relative intensity vs. forward current.



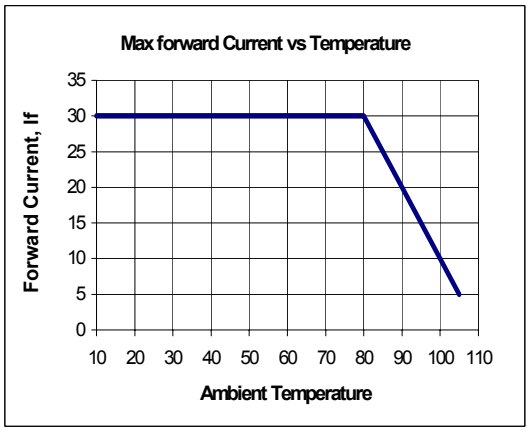
Forward current vs. forward voltage.



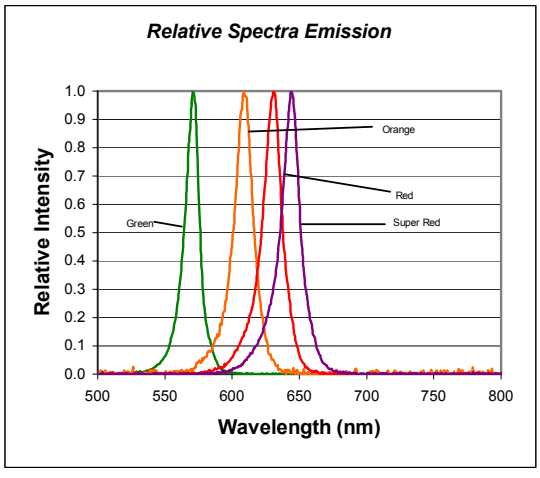
Radiation pattern.



Maximum current vs. ambient temperature.



Relative Intensity vs. Wavelength

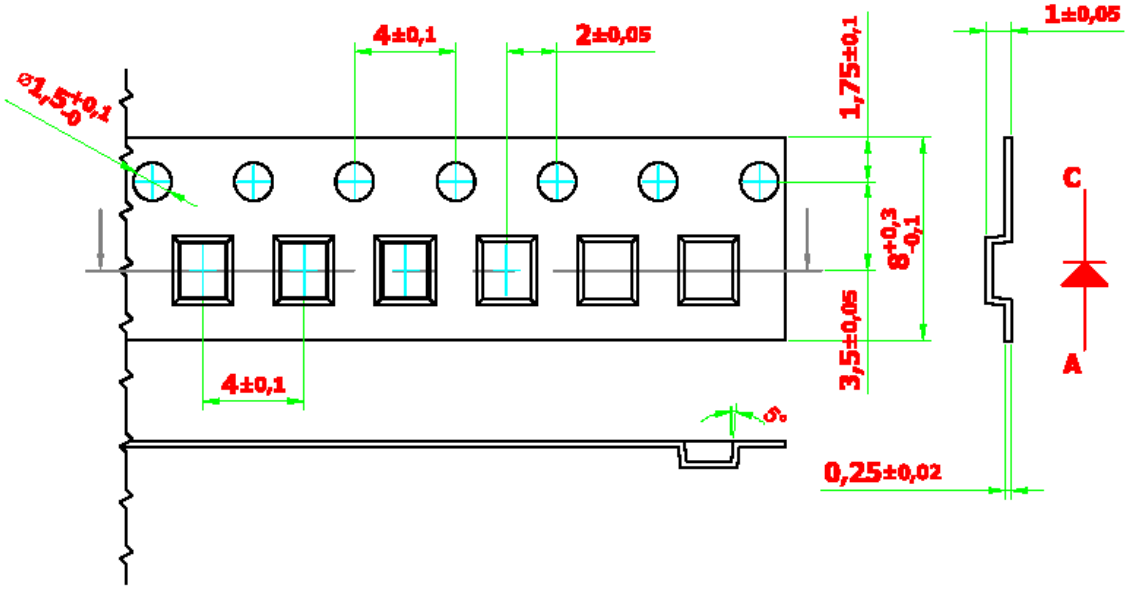


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Taping And Orientation.

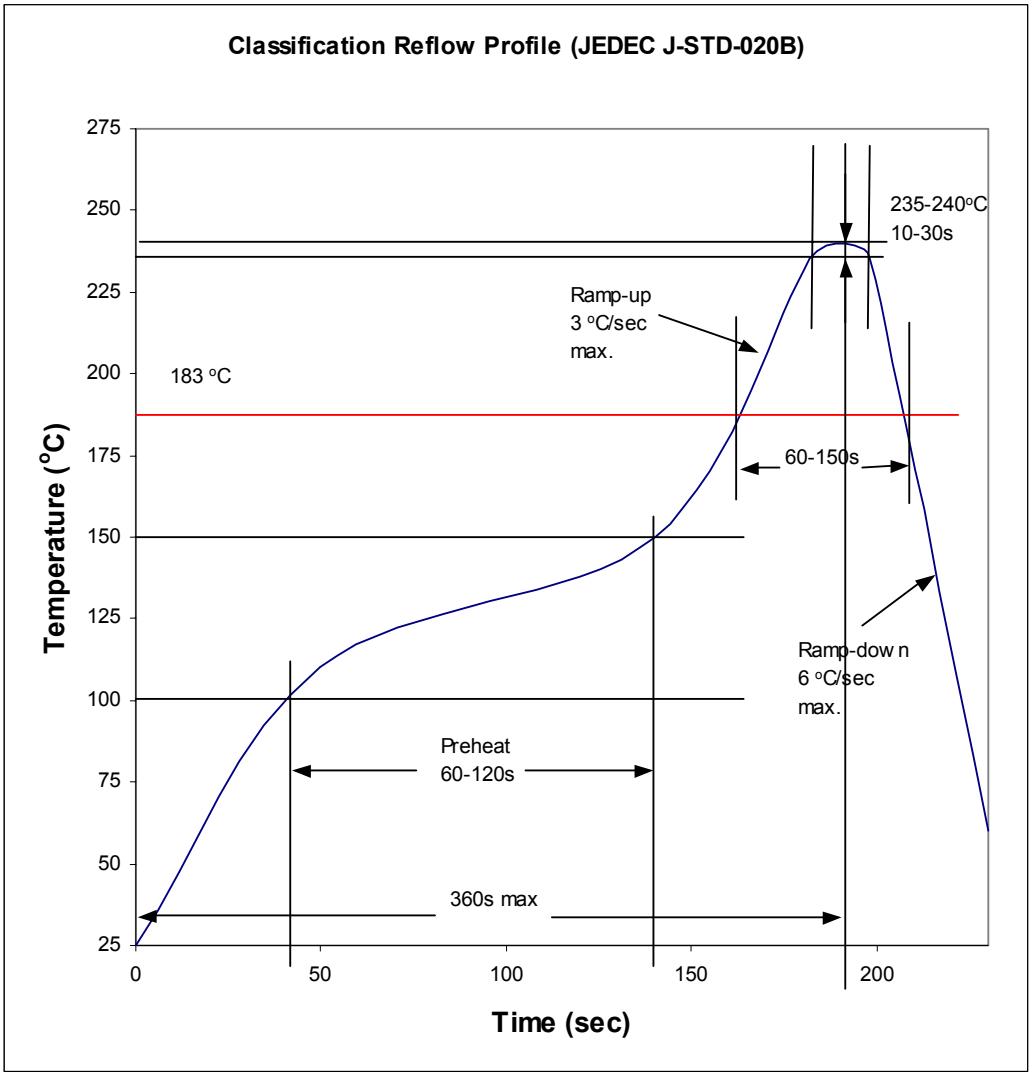
Reels come in quantity of 3000 units.

Reel diameter is 180 mm.



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Recommended IR-reflow Soldering Profile.



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NOTE.

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