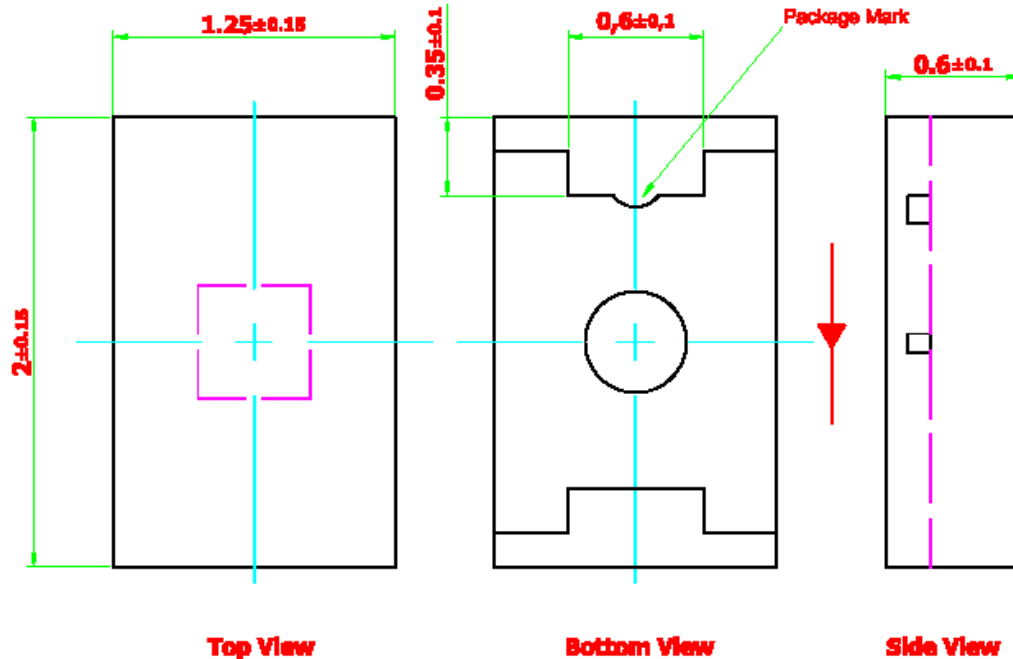


Engineering reference data are not verified. The specifications are subject to change without notice.

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 <ul style="list-style-type: none"> • SMS-CLD-N2 • SMS-CLD-P1 • SMS-CLD-P2 	AllInGaP / Super Red	160	35.5 ... 71.5 35.5 ... 45.0 45.0 ... 56.0 56.0 ... 71.5
SMR-CLD-PQ1-1 <ul style="list-style-type: none"> • SMR-CLD-P1 • SMR-CLD-P2 • SMR-CLD-Q1 	AllInGaP / Red	160	45.0 ... 90.0 45.0 ... 56.0 56.0 ... 71.5 71.5 ... 90.0
SMO-CLD-P2Q-1 <ul style="list-style-type: none"> • SMO-CLD-P2 • SMO-CLD-Q1 • SMO-CLD-Q2 	AllInGaP / Orange	160	56.0 ... 112.5 56.0 ... 71.5 71.5 ... 90.0 90.0 ... 112.5
SMY-CLD-P2Q-1 <ul style="list-style-type: none"> • SMY-CLD-P2 • SMY-CLD-Q1 • SMY-CLD-Q2 	AllInGaP / Yellow	160	56.0 ... 112.5 56.0 ... 71.5 71.5 ... 90.0 90.0 ... 112.5
SMG-CLD-M2N-1 <ul style="list-style-type: none"> • SMG-CLD-M2 • SMG-CLD-N1 • SMG-CLD-N2 	AllInGaP / 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 $\pm 11\%$.
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.

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

Electrical Characteristics.

(Ta = 25°C)

Part Number	Vf @ If= 20 mA		Vr @ Ir =10uA
	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 $\pm 0.1V$.

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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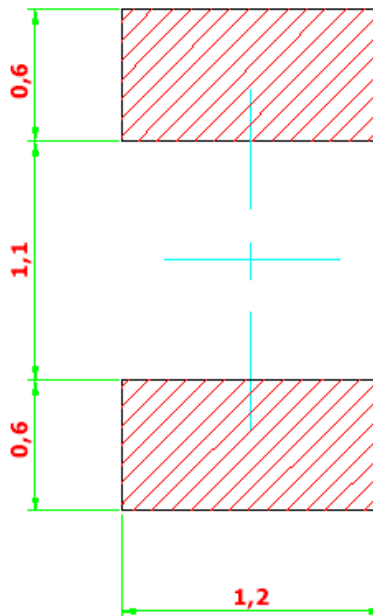
Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current. ($t_p \leq 10 \mu\text{s}$, 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.

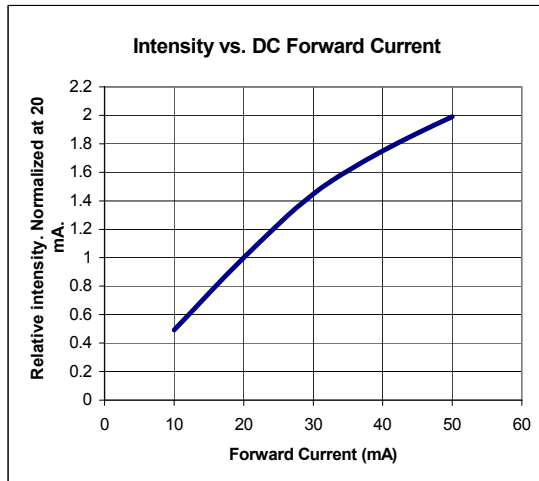
Note: Product is Pb free.

Recommended Solder Pad

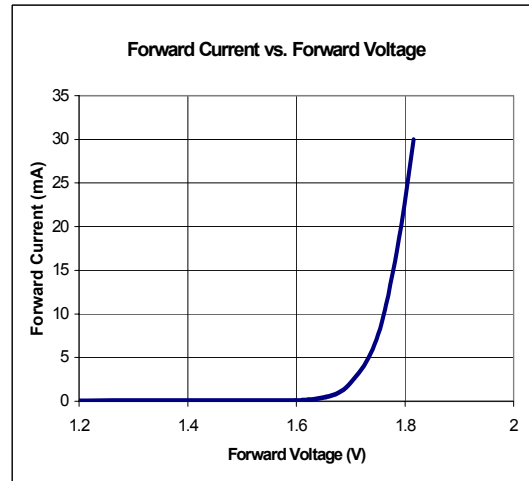
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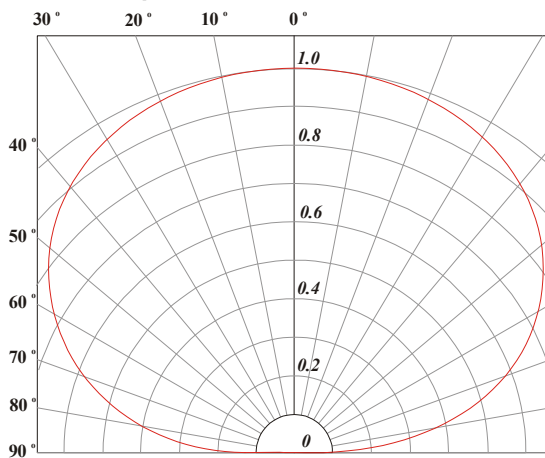
Relative intensity vs. forward current.



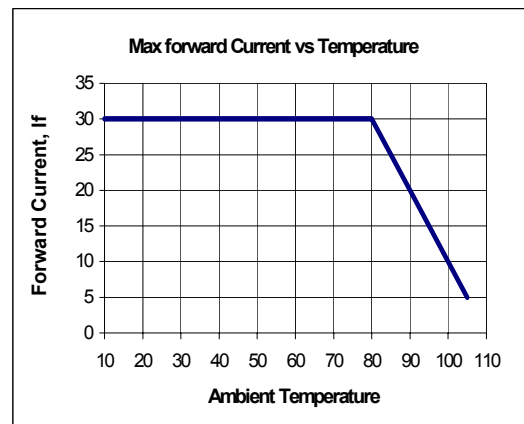
Forward current vs. forward voltage.



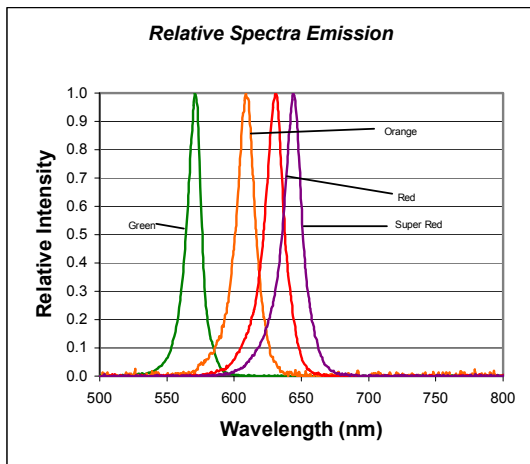
Radiation pattern.



Maximum current vs. ambient temperature.



Relative Intensity vs. Wavelength

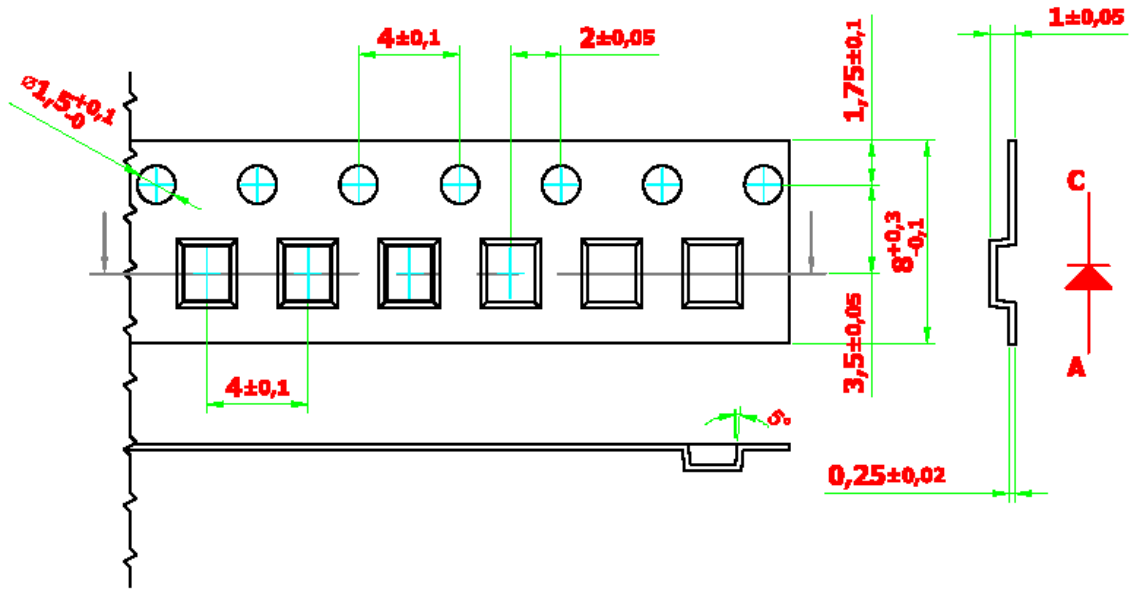


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Taping And Orientation.

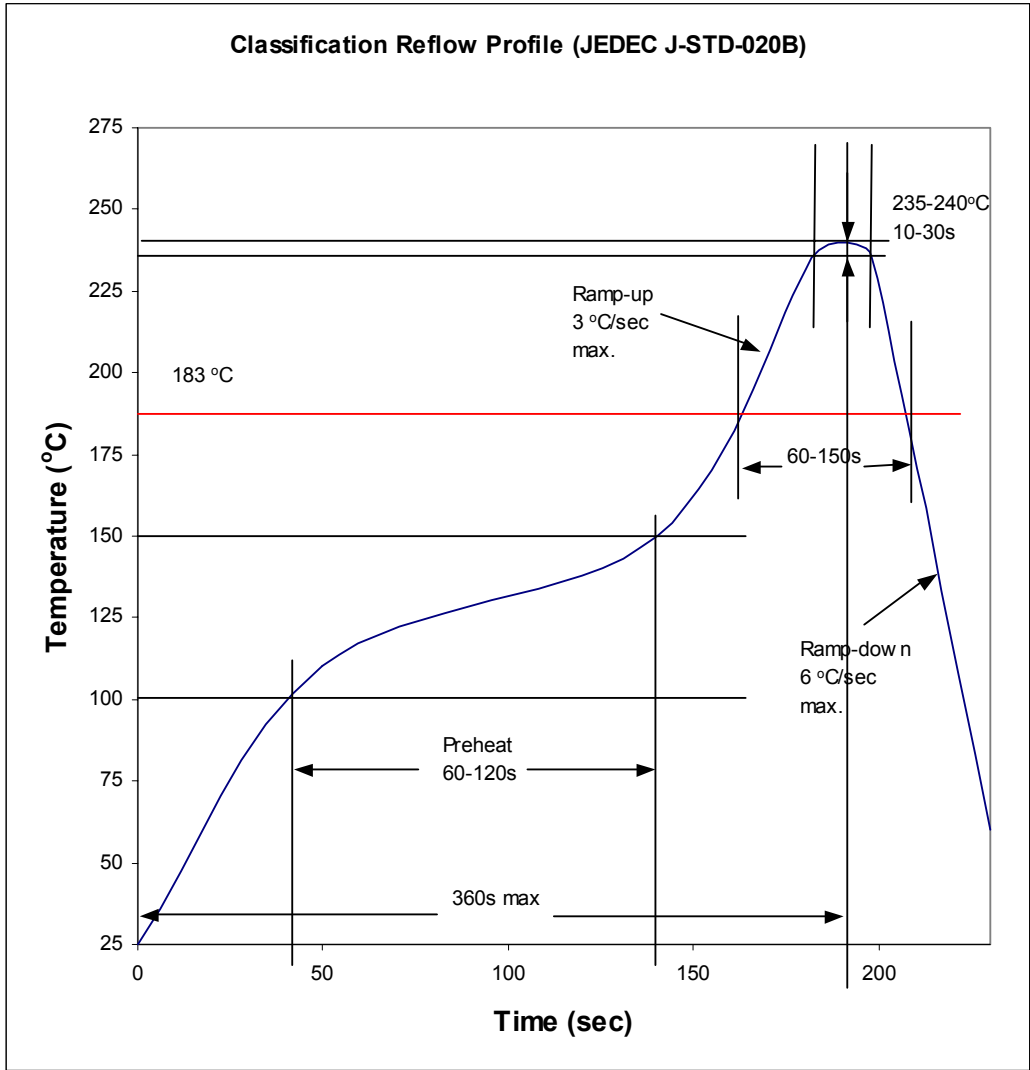
Reels come in quantity of 3000 units.

Reel diameter is 180 mm.



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

Recommended IR-reflow Soldering Profile.



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NOTE.

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