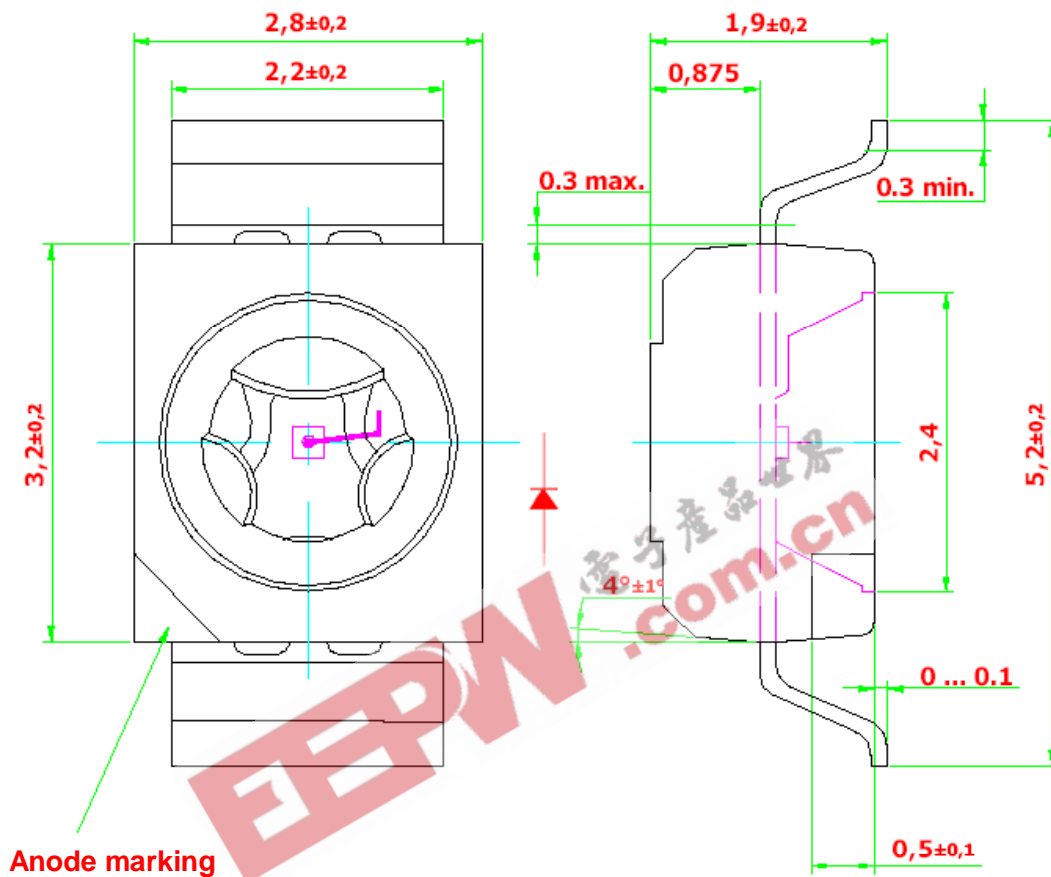


DomiLED – AlGaAs: DDH-GRS



- Surface mount LED.
- 120° viewing angle.
- Small package outline (LxWxH) of 3.2 x 2.8 x 1.8 mm.
- Qualified according to JEDEC moisture sensitivity Level 2.
- Compatible to both IR reflow soldering and TTW soldering.

| Part Ordering Number | Chip Technology / Color (dom. WL) | Luminous Intensity @ If = 20mA Iv (mcd) |
|----------------------|-----------------------------------|--|
| DDH-GRS-MN2-1 | AlGaAs/ Hyper Red, 645 nm | 18.0 ... 45.0 |
| • DDH-GRS-M1 | | 18.0 ... 22.4 |
| • DDH-GRS-M2 | | 22.4 ... 28.5 |
| • DDH-GRS-N1 | | 28.5 ... 35.5 |
| • DDH-GRS-N2 | | 35.5 ... 45.0 |
| DDH-GRS-NP2-1 | | 28.5 ... 71.5 |
| • DDH-GRS-N1 | | 28.5 ... 35.5 |
| • DDH-GRS-N2 | | 35.5 ... 45.0 |
| • DDH-GRS-P1 | | 45.0 ... 56.0 |
| • DDH-GRS-P2 | | 56.0 ... 71.5 |

NOTE:

1. All part number above comes in a quantity of 2000 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. An optional Vf binning is also available upon request. Binning scheme is as per following table.

Characteristics.

| Forward voltage @ If=20 mA. | Chip Type | Viewing angle at 50% Iv | Reverse current, I _R @ V _R = 5V, (max) |
|--------------------------------|-----------|----------------------------|---|
| 1.9 V (typ.); 2.6 V (max) | AlGaAs | 120° | 100 μ A |

Wavelength Grouping.

| Color | Group | Wavelength distribution (nm) |
|----------------|-------|------------------------------|
| DDH; Hyper Red | Full | 640 – 650 |

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

Vf Binning.

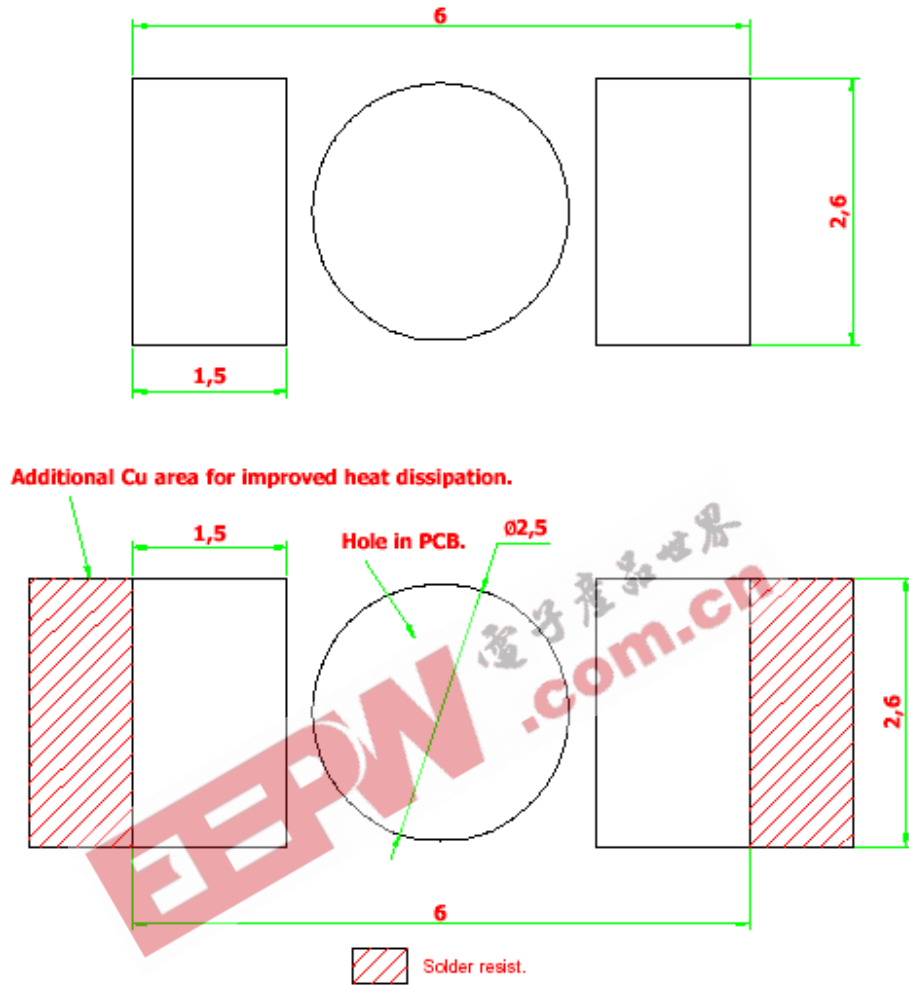
| Vf Bin @ 20mA | Forward voltage (V) |
|---------------|---------------------|
| 01 | 1.55 ... 1.85 |
| 02 | 1.85 ... 2.15 |
| 03 | 2.15 ... 2.45 |
| 04 | 2.45 ... 2.60 |

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

Absolute Maximum Ratings.

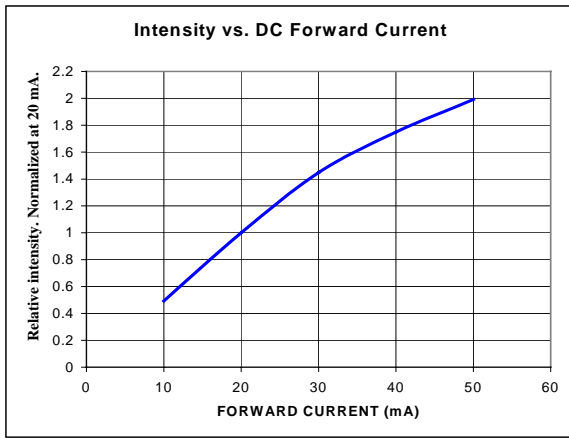
| | Maximum Value | Unit |
|---|---------------|--------------------|
| DC forward current. | 30 | mA |
| Peak pulse current; ($t_p \leq 10 \mu\text{s}$, Duty cycle = 0.005) | 500 | mA |
| Reverse voltage. | 5 | V |
| LED junction temperature. | 100 | $^{\circ}\text{C}$ |
| Operating temperature. | -40 ... +100 | $^{\circ}\text{C}$ |
| Storage temperature. | -40 ... +100 | $^{\circ}\text{C}$ |
| Power dissipation (at room temperature) | 75 | mW |

Recommended Solder Pad

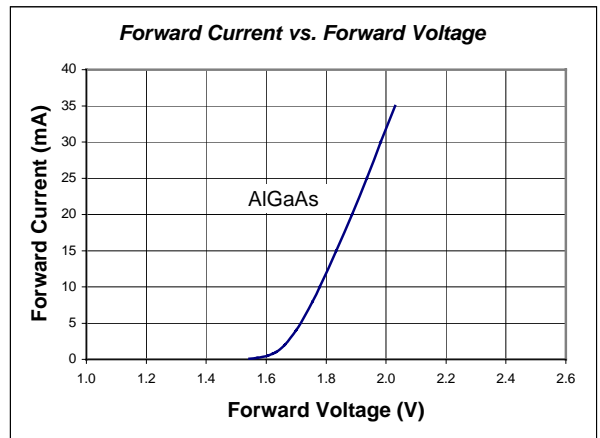


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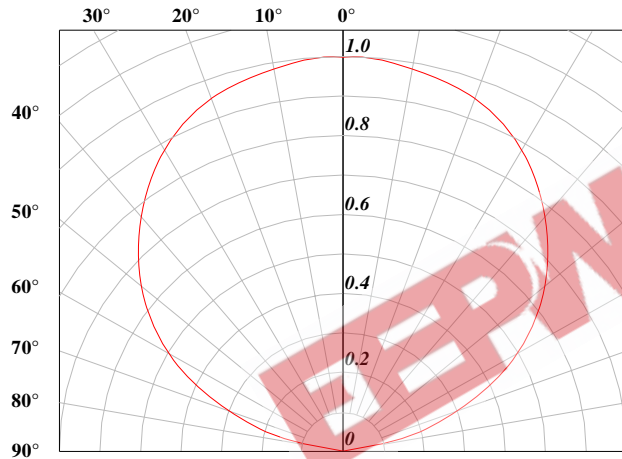
Relative luminous intensity vs. forward current.



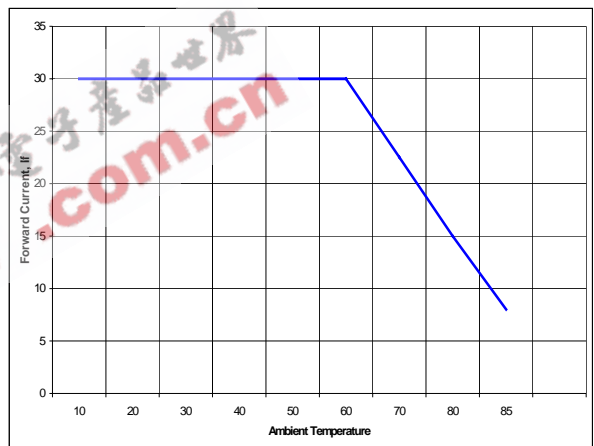
Forward current vs. forward voltage.



Radiation pattern.



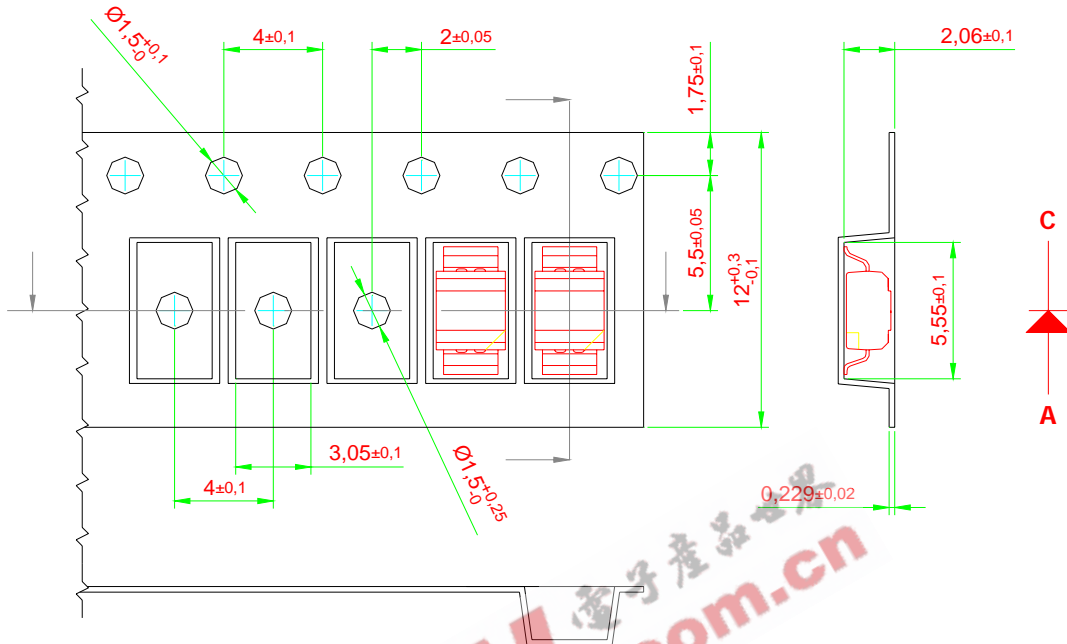
Maximum forward current vs. temperature.



Taping And Orientation.

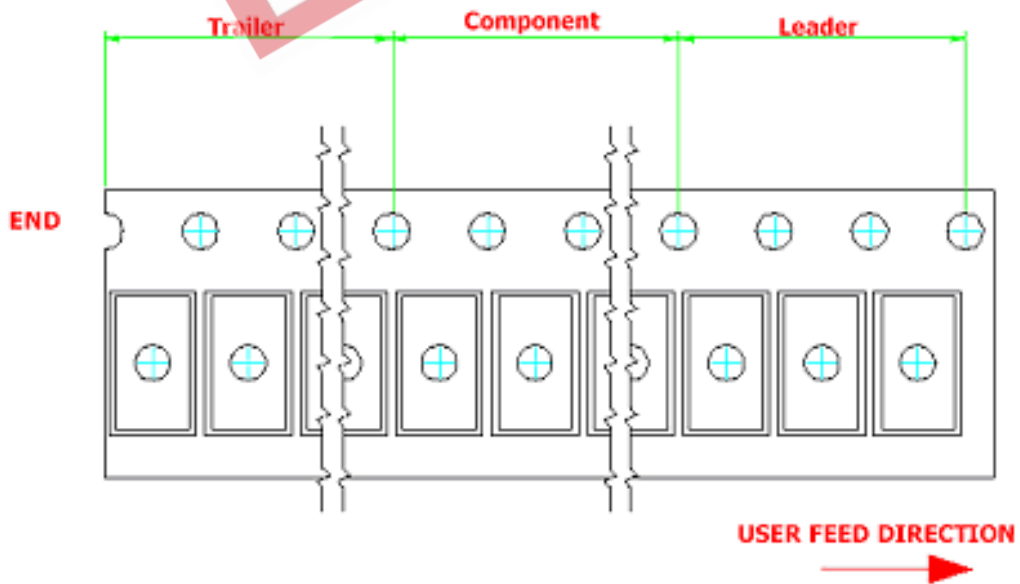
Reels come in quantity of 2000 units.

Reel diameter is 180 mm.

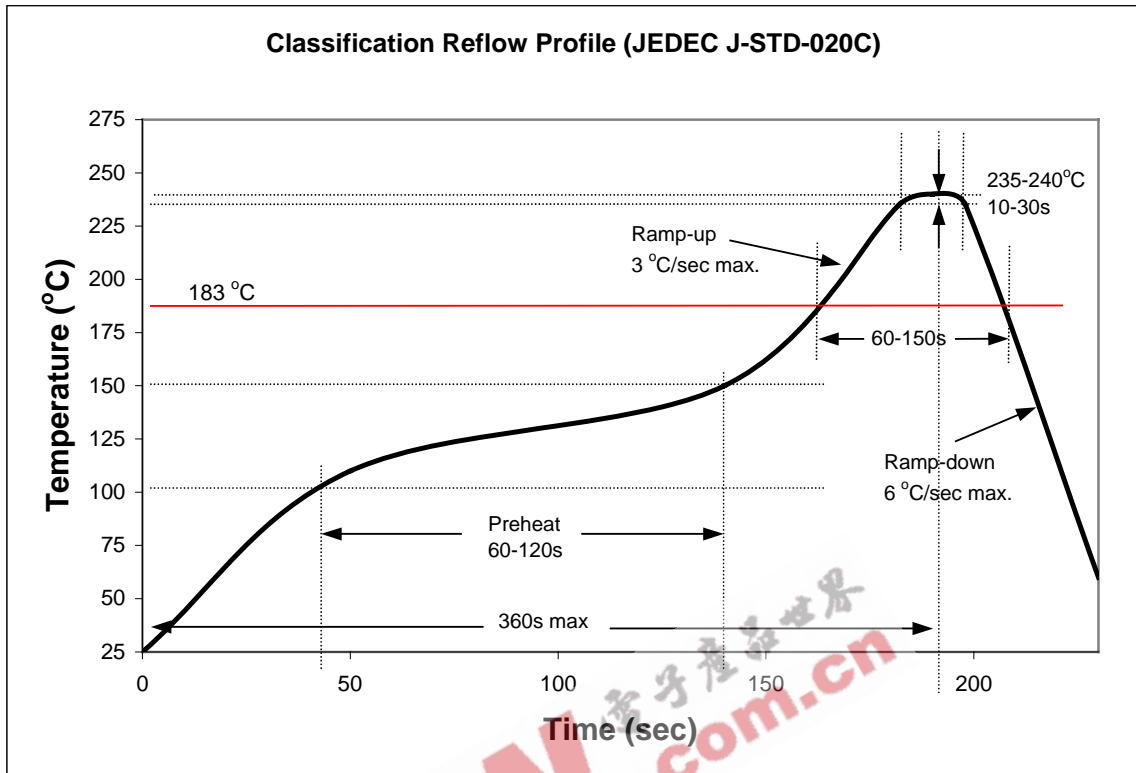


200 mm min. for Ø180 reel.
200 mm min. for Ø330 reel.

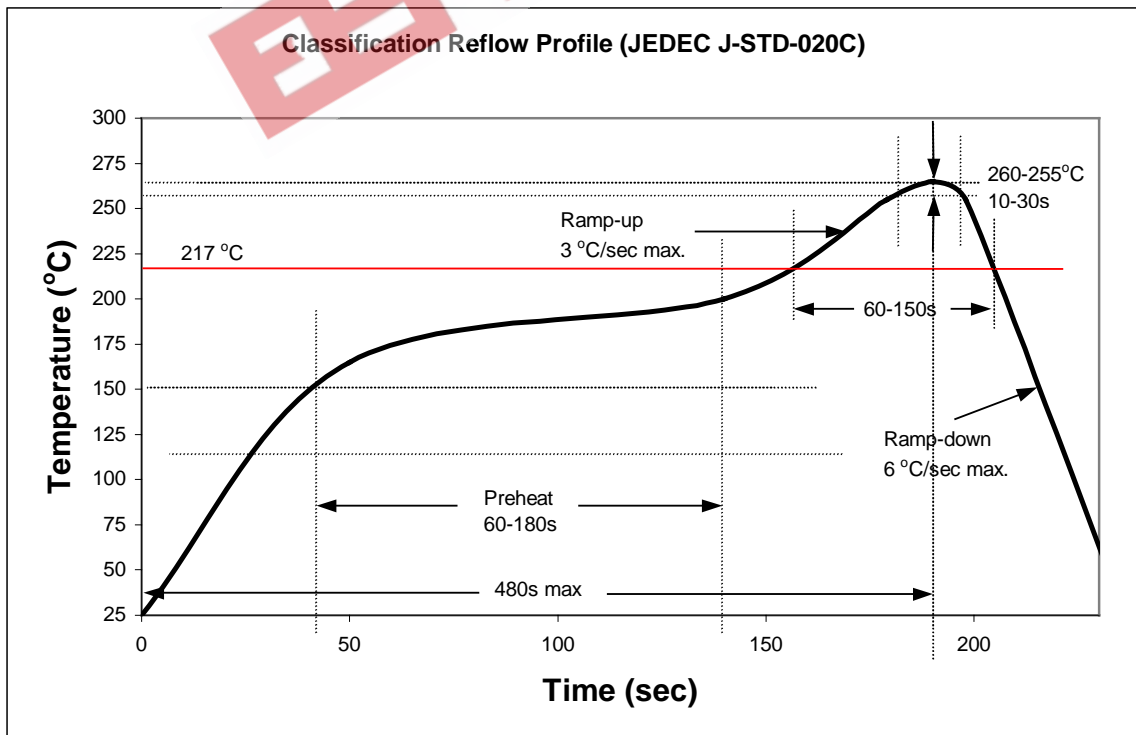
480 mm min. for Ø180 reel.
960 mm min. for Ø330 reel.



Recommended Sn-Pb IR-Reflow Soldering Profile.



Recommended Pb Free IR-Reflow Soldering Profile.



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