

APE2712SURCK

HYPER RED

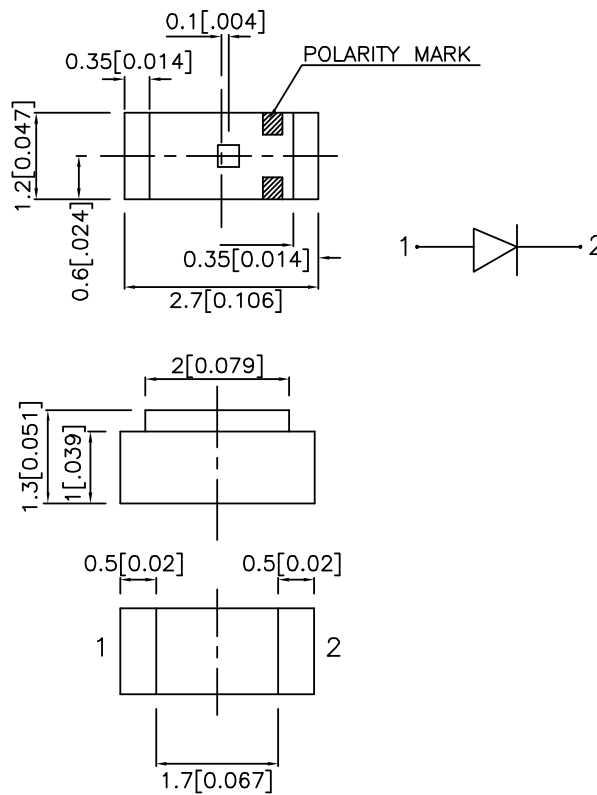
Features

- 2.7mmx1.2mm SMT LED, 1.3mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE :2000PCS / REEL.
- RoHS COMPLIANT.

Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2 (0.008") unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20 mA | | Viewing Angle |
|--------------|---------------------|-------------|---------------------|------|------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APE2712SURCK | HYPER RED (InGaAlP) | WATER CLEAR | 70 | 150 | 120° |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

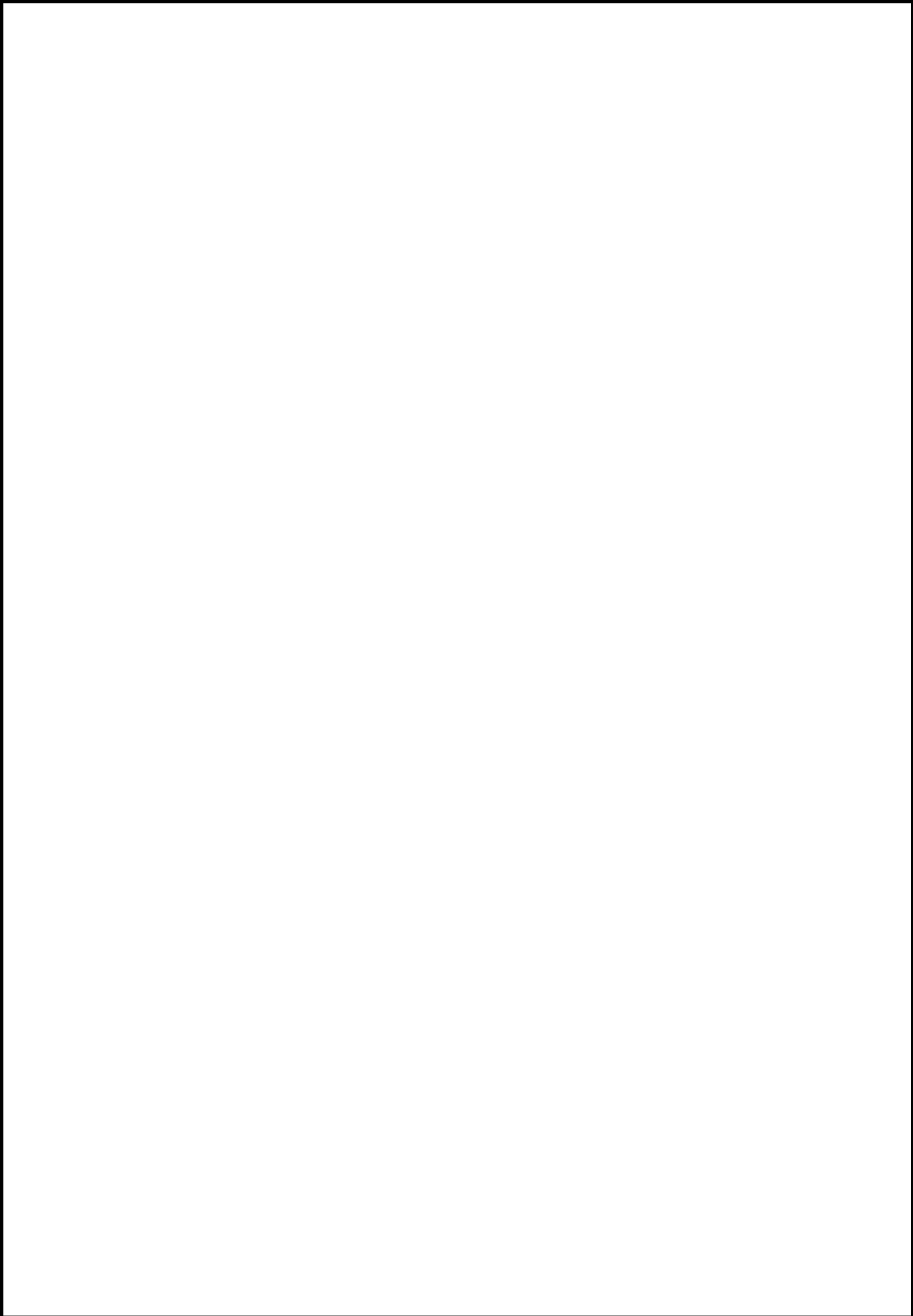
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|-----------|------|------|-------|-----------------|
| λ_{peak} | Peak Wavelength | Hyper Red | 650 | | nm | IF=20mA |
| λ_D | Dominant Wavelength | Hyper Red | 635 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Hyper Red | 28 | | nm | IF=20mA |
| C | Capacitance | Hyper Red | 35 | | pF | VF=0V;f=1MHz |
| VF | Forward Voltage | Hyper Red | 1.95 | 2.5 | V | IF=20mA |
| IR | Reverse Current | Hyper Red | | 10 | uA | VR = 5V |

Absolute Maximum Ratings at TA=25°C

| Parameter | Hyper Red | Units |
|---------------------------------|----------------|-------|
| Power dissipation | 170 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 185 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

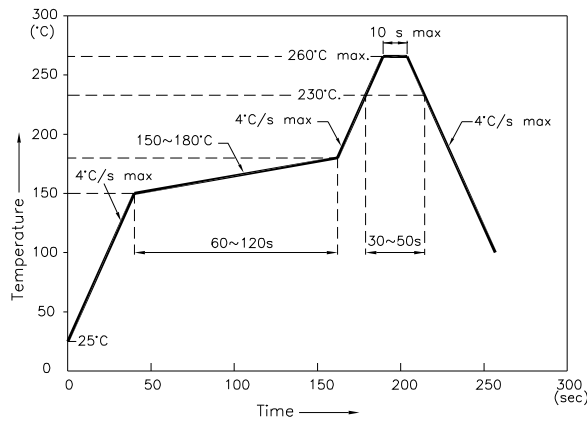
Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.



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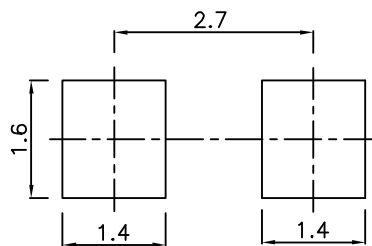
Reflow Soldering Profile For Lead-free SMT Process.



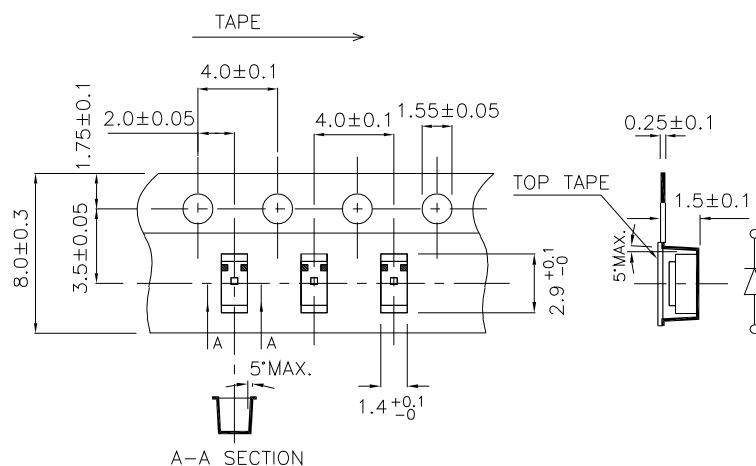
NOTES:

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.