

P/N: KM2520EF/4ID

HIGH EFFICIENCY RED

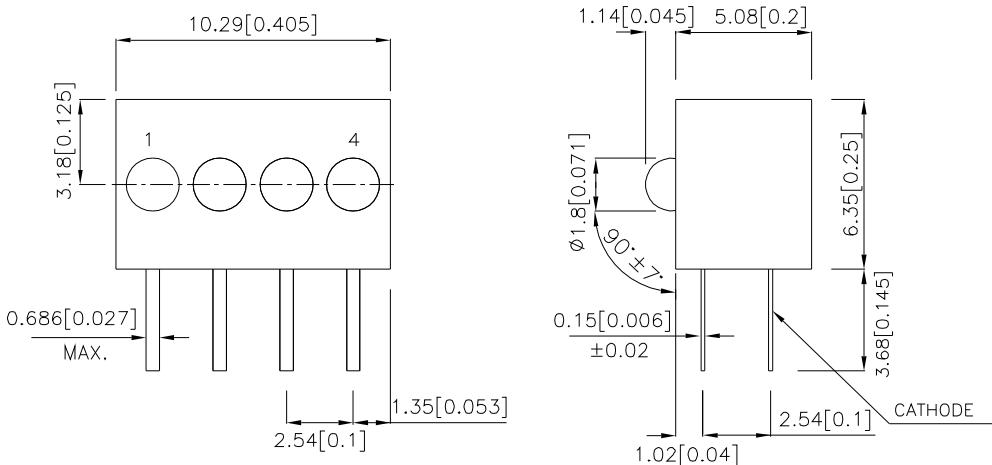
### Features

- BLACK CASE ENHANCES CONTRAST.
- VIBRATION AND SHOCK RESISTANT.
- AVAILABLE WITH A VARIETY OF LEDs.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.
- RoHS COMPLIANT.

### Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.     | Dice                            | Lens Type    | I <sub>v</sub> (mcd) @ 20mA |      | Viewing Angle |
|--------------|---------------------------------|--------------|-----------------------------|------|---------------|
|              |                                 |              | Min.                        | Typ. |               |
| KM2520EF/4ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 7                           | 30   | 20° 1/2       |

Note:

1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

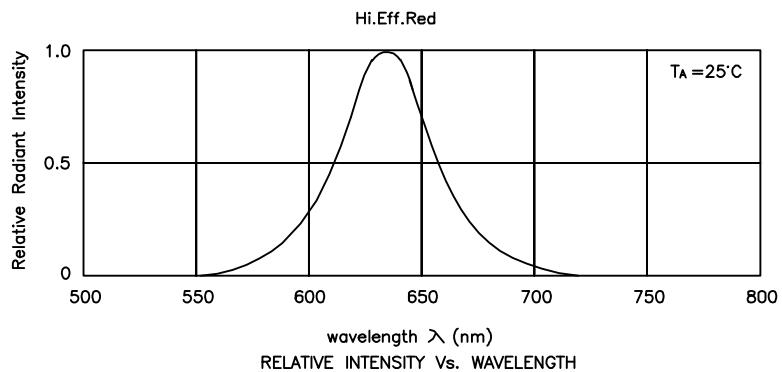
| Symbol              | Parameter                | Device              | Typ. | Max. | Units | Test Conditions           |
|---------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| $\lambda_{peak}$    | Peak Wavelength          | High Efficiency Red | 627  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$         | Dominant Wavelength      | High Efficiency Red | 625  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda 1/2$ | Spectral Line Half-width | High Efficiency Red | 45   |      | nm    | I <sub>F</sub> =20mA      |
| C                   | Capacitance              | High Efficiency Red | 15   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>      | Forward Voltage          | High Efficiency Red | 2.0  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>      | Reverse Current          | High Efficiency Red |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Parameter                     | High Efficiency Red | Units |
|-------------------------------|---------------------|-------|
| Power dissipation             | 105                 | mW    |
| DC Forward Current            | 30                  | mA    |
| Peak Forward Current [1]      | 160                 | mA    |
| Reverse Voltage               | 5                   | V     |
| Operating/Storage Temperature | -40°C To +85°C      |       |
| Lead Solder Temperature [2]   | 260°C For 3 Seconds |       |
| Lead Solder Temperature [3]   | 260°C For 5 Seconds |       |

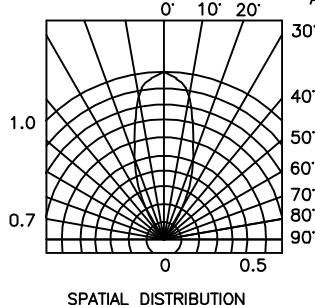
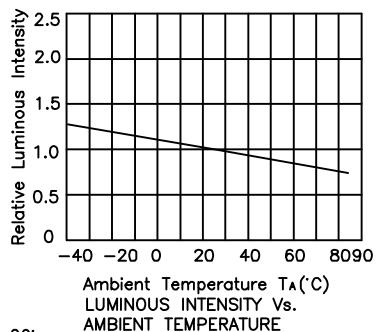
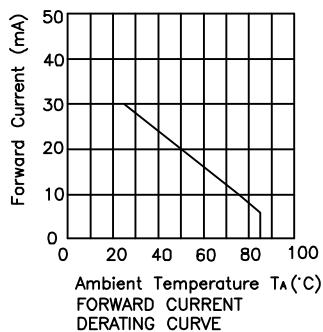
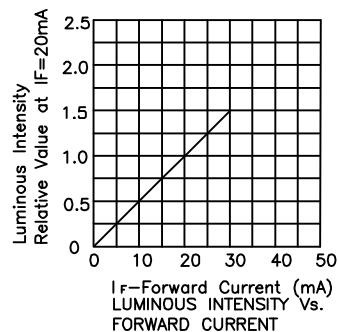
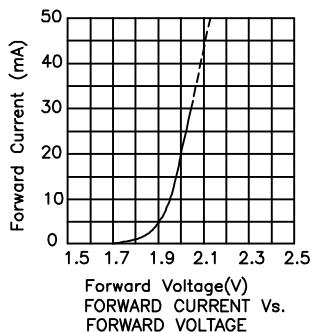
Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.



High Efficiency Red

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Remarks:

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

1. Wavelength:  $\pm 1\text{nm}$
2. Luminous intensity/ luminous flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.