EDCEN
COMPONENTS
A MEMBER OF EDCON-GROUP

Applications

- Interior automotive lighting
- Optical indicators
- Communication Products
- Backlighting
- Toys

Technical Drawing


Recommended Soldering Pattern


Notes:
All dimensions in mm tolerance is
$\pm 0.1 \mathrm{~mm}$ unless otherwise noted.

## SMT Top View LED <br> Yellow



EDCEN
COMPONENTS
A MEMBER OF EDCON-GROUP

## Absolute Maximum Ratings

$\mathrm{Ta}=25^{\circ} \mathrm{C}$

| Item | Symbol | GaAsP | Unit |
| :---: | :---: | :---: | :---: |
| Power Dissipation | $\mathrm{P}_{\mathrm{D}}$ | 65 | mW |
| DC Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 25 | mA |
| Plused Forward Current | $\mathrm{I}_{\mathrm{FP}}{ }^{*}$ | 100 | mA |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 5 | V |
| Operating Temperature | $\mathrm{T}_{\mathrm{OP}}$ | -30 to 80 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | $\mathrm{T}_{\mathrm{ST}}$ | -40 to 85 | ${ }^{\circ} \mathrm{C}$ |

* 0.1 msec pulse, 10\% duty cycle

Electrcal / Optical Characteristics $\quad \mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA} \quad \mathrm{Ta}=25^{\circ} \mathrm{C}$

| Ermitting Color | Yellow |  |  |
| :---: | :---: | :---: | :---: |
| Material | GaAsP |  |  |
| Forward Voltage | typ. | 2.1 | $\mathrm{~V}_{\mathrm{F}}$ |
|  | max. | 2.6 | $\mathrm{~V}_{\mathrm{F}}$ |
| Wavelength <br> typ. | $\lambda \mathrm{D}$ | 590 | nm |
|  | $\lambda \mathrm{P}$ | 589 | nm |
|  | $\Delta \lambda$ | 35 | nm |
| Color Temperature | min. | --- | K |
|  | max. | --- | K |
| Luminous Intensity * | min. | 7.2 | mcd |
|  | typ. | 9 | HA |
| Reverse Current | max. | --- |  |
| Viewing Angle | $2 \Theta 1 / 2$ | 140 |  |

* Per NIST standards

|  |  |  |  |  | SMT Top View LED Yellow |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Part No.: | M11D5002 |  |
|  |  |  |  |  | Customer: |  |  |
| DRW: | Wang | CHKD | Wung | MATL: | Chul | DATE | 03.12.2009 |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 2 from 9 |

## Directive Characteristics



|  |  |  |  |  | SMT Top View LED Yellow |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Part No.: | M11D5002 |  |
|  |  |  |  |  | Customer: |  |  |
| DRW: | Wang | CHKD | Wung | MATL: | Chul | DATE | 03.12.2009 |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 3 from 9 |

RoHS Lead Free
EDCEN
COMPONENTS
A MEMBER OF EDCON-GROUP

## Curvs







Fonward Current vs. Forward Voltage D0. soen pulas. 1\% oucy cjae


## SMT Top View LED Yellow

Part No.:
M11D5002
Customer:

| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12 .2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 4 from 9 |

C OMPONENTS
A MEMBER OF EDCON-GROUP

## Solder Condition

## Lead Free Solder

Classification Reflow Profile (JEDEC J-STD-020C)


|  |  |  |  |  | SMT Top View LED Yellow |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Part No.: |  | M11D5002 |
|  |  |  |  |  | Customer: |  |  |
| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12.2009 |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 5 from 9 |

$3 \cdot(1) \mathrm{N}$
COMPONENTS
A MEMBER OF EDCON-GROUP

Packing Specifications


Reel Specifications


|  |  |  |  |  | SMT Top View LED Yellow |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Part No.: |  | M11D5002 |
|  |  |  |  |  | Customer: |  |  |
| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12.2009 |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 6 from 9 |

ADCR ${ }^{\circ}$
A MEMBER OF EDCON-GROUP

## Handling Precautions

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible.
Although ist characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force. As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of th LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools

2. Do not directly touch or handle the silicone lens surfance. It may damage the internal circuitry.

3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.



2
COMPONENTS
A MEMBER OF EDCON-GROUP
4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
6. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.


SMT Top View LED
Yellow

|  |  |  |  |  | Part No.: |  | M11D5002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Customer: |  |  |
| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12.2009 |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 8 from 9 |

RoHs Lead Free
EDCEN
COMPONENTS
A MEMBER OF EDCON-GROUP

## Color table curve



SMT Top View LED
Yellow
Part No.:
M11D5002
Customer:

| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12 .2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPD: | Ping |  |  | FINISH | Dia | Sheet | 9 from 9 |

