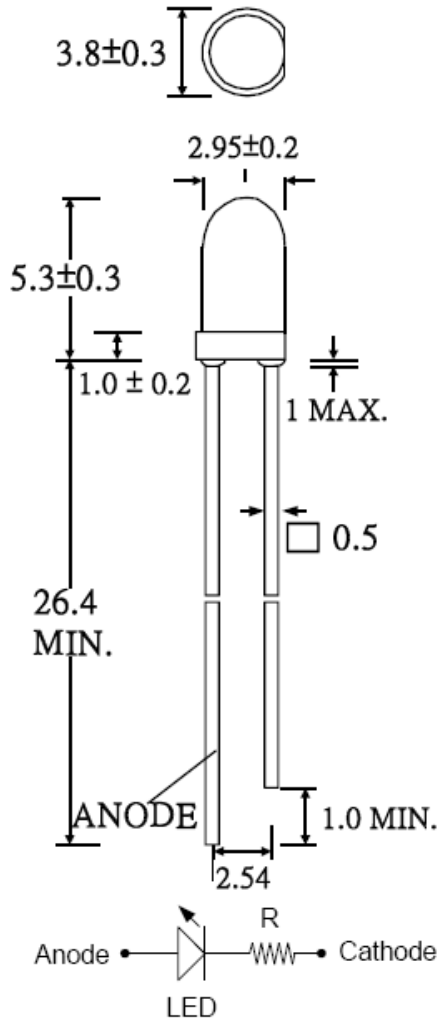


## Light Emitting Diode Lamp

### ★ Package Dimensions



#### NOTE:

1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.

### ★ Selection Guide

| Part NO.       | Chip      |               | Lens Color   | Viewing Angle $2\theta$<br>1/2(deg) |
|----------------|-----------|---------------|--------------|-------------------------------------|
|                | Material  | Emitted Color |              |                                     |
| 3-22B-CD45R/5V | GaAsP/GaP | Hi-Eff Red    | Red diffused | 60                                  |

## Light Emitting Diode Lamp

Part No: 3-22B-CD45R/5V

### ★Absolute Maximum Ratings

(Ta=25°C)

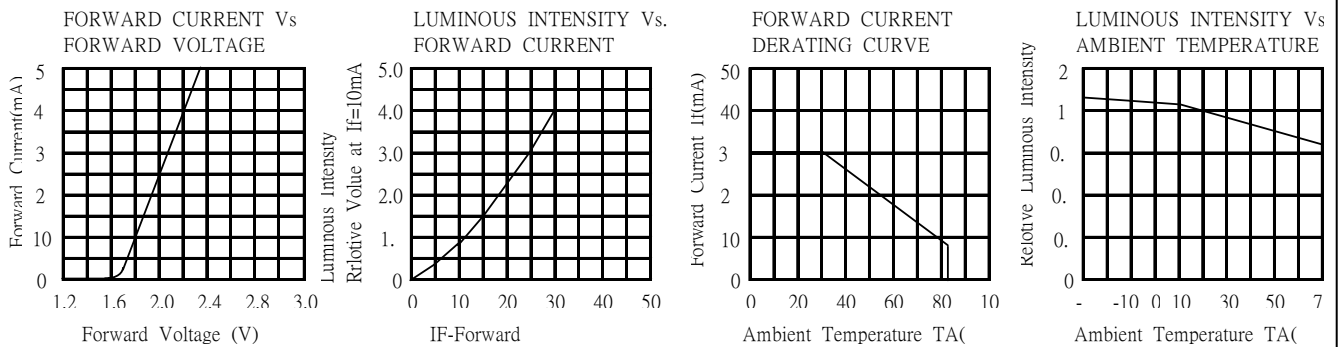
| Parameter                                                           | Symbol | MAX. Raging | Unit |
|---------------------------------------------------------------------|--------|-------------|------|
| Power Dissipation                                                   | Pd     | 125         | mW   |
| Pak forward current (10 μs Pulse)                                   | IFP    | 50          | mA   |
| Reverse Voltage                                                     | VR     | 5.0         | V    |
| Operating Temperature                                               | Topr   | -40~+85     | °C   |
| Storage Temperature                                                 | Tstg   | -40~+85     | °C   |
| Lead Soldering Temperature (1.6mm From Case Bottom 260°C For 5 SEC) |        |             |      |

### ★Electric-Optical Characteristics

| Parameter                    | Symbol | Test Condition | MIN | TYP | MAX | Unit |
|------------------------------|--------|----------------|-----|-----|-----|------|
| Forward Voltage              | VF     | IF=20mA        |     | 5   |     | V    |
| Reverse Voltage              | IR     | VR=5V          |     |     | 10  | uA   |
| Luminous Intensity           | IV     | IF=20mA        | 15  | 25  |     | mcd  |
| Peak Emission Wavelength     | λ P    | IF=20mA        |     | 635 |     | nm   |
| Spectrum Width Of Half Value | Δ λ    | IF=20mA        |     | 35  |     | nm   |

### ★Characteritics Diagrams

High Efficiency Red



## Light Emitting Diode Lamp

Part No: 3-22B-CD45R/5V

### ★Reliability Test

| No | Item                                | Test Condition                             | Test Hours/Cycles | Samples Tested | Acc./Rej |
|----|-------------------------------------|--------------------------------------------|-------------------|----------------|----------|
| 1  | Room Temperature DC Oper-ating Life | Ta=25°C,<br>I <sub>F</sub> =20mA           | 1000 Hrs          | 76             | 0/1      |
| 2  | Thermal Shock                       | -10°C (5min)→<br>(10sec)→+100°C<br>(5min)  | 100 Cycles        | 76             | 0/1      |
| 3  | Temperature Cycle                   | -40°C (30min)<br>→(5min)→+85<br>°C (30min) | 100 Cycles        | 76             | 0/1      |
| 4  | High Temp./<br>High Humi. Test      | 85°C/85%RH                                 | 1000 Hrs          | 76             | 0/1      |
| 5  | High Temperature Storage            | Ta=100°C                                   | 1000 Hrs          | 76             | 0/1      |
| 6  | Low Temperature Storage             | Ta= - 40°C                                 | 1000 Hrs          | 76             | 0/1      |
| 7  | Soldering Heat                      | 260°C±5°C                                  | 5 Seconds         | 76             | 0/1      |