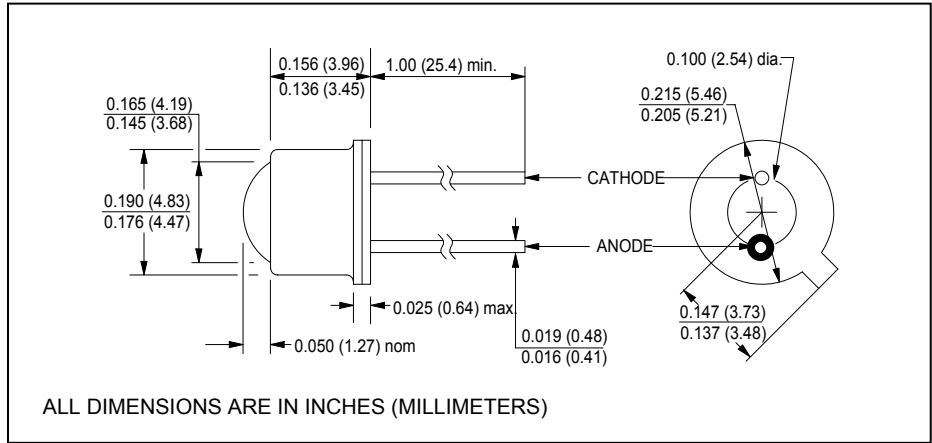
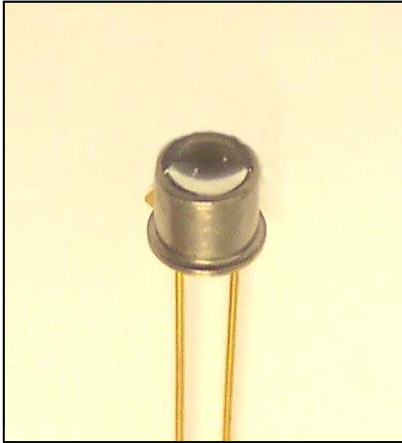




MCDE-539

High Power GaN White LED Dome Lens Can, Hermetically Sealed



features

- Dome lens TO-46 package
- $\pm 11^\circ$ emitting angle
- High luminous intensity
- High luminous flux
- Cathode connected to case

description

The MCDE-539 contains a GaN, high power output, blue LED bonded to a ceramic substrate and mounted on a TO-46 header. A phosphor coating is applied to the die which, when excited, emits white light. The TO-46 header provides the thermal environment for reliable operation over a wide temperature range.

absolute maximum ratings ($T_A = 25^\circ\text{C}$ unless otherwise stated)

| | |
|---|-----------------|
| storage temperature..... | -65°C to +150°C |
| operating temperature..... | -65°C to +125°C |
| lead soldering temperature ⁽¹⁾ | 260°C |
| continuous forward current ⁽²⁾ | 55mA |
| reverse voltage..... | 5V |
| peak forward current (1.0ms pulse width, 10% duty cycle)..... | 0.25A |
| continuous power dissipation ⁽³⁾ | 200mW |

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 0.44mA/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
3. Derate linearly 1.60mW/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.

electrical characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| symbol | parameter | min | typ | max | units | test conditions |
|---------------|----------------------------------|-----|-----|-----|---------------|---------------------|
| I_V | Luminous intensity | - | 6.2 | - | cd | $I_F = 20\text{mA}$ |
| Φ_V | Luminous flux | - | 642 | - | mlm | $I_F = 20\text{mA}$ |
| V_F | Forward voltage | - | 3.2 | 3.6 | V | $I_F = 20\text{mA}$ |
| I_R | Reverse current | - | - | 5.0 | μA | $V_R = 5.0\text{V}$ |
| Θ_{HP} | Total angle at half power points | - | 22 | - | deg. | $I_F = 20\text{mA}$ |

MCD Electronics Inc. reserves the right to make changes at any time to improve design and to provide the best possible product.