

Specification Sheet

Revision Date 30/09/04

Document Control No:

DESCRIPTION: 1W HIGH POWER LEDs

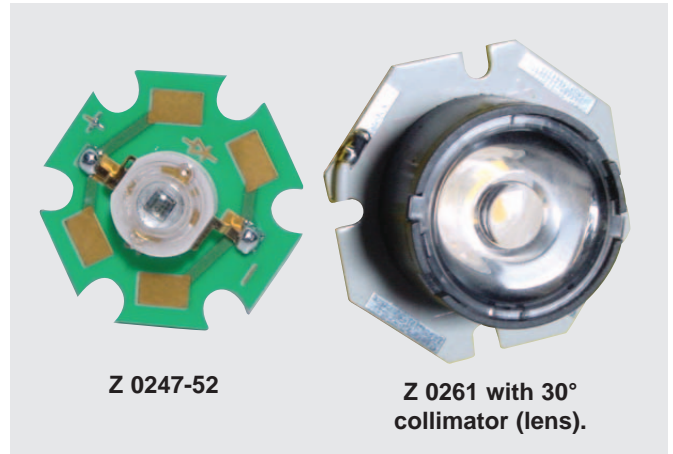
PART NUMBER: Z 0247, Z 0248, Z 0250, Z 0251, Z 0252, Z 0253, Z 0261

FEATURES:

- Long operating life (up to 100,000 hours)
- Lambertian package ($2\theta/2 = 120^\circ$)
- 1W power output
- More energy efficient than incandescent and most halogen lamps
- Low forward voltage operation
- Instant startup (less than 100ns)

APPLICATIONS:

- Reading lights
- Portable flashlights
- Uplighting and downlighting
- Security / garden lighting
- LCD backlights
- Automotive / Boat / Caravan lighting
- General lighting uses

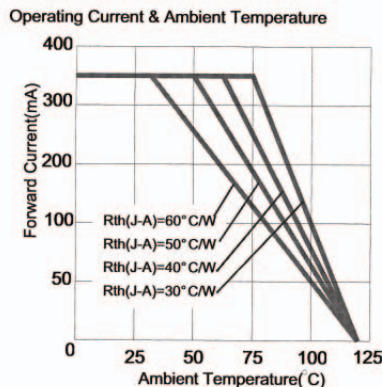
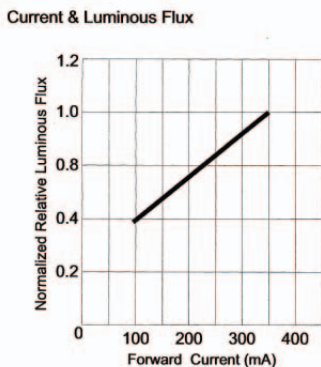
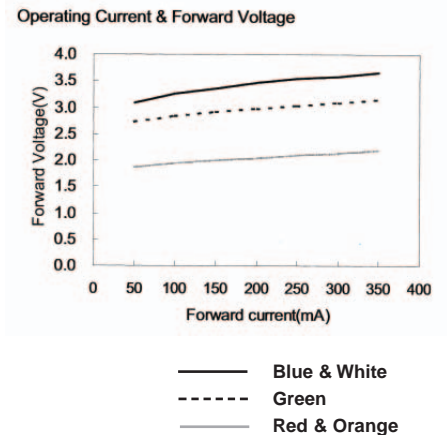
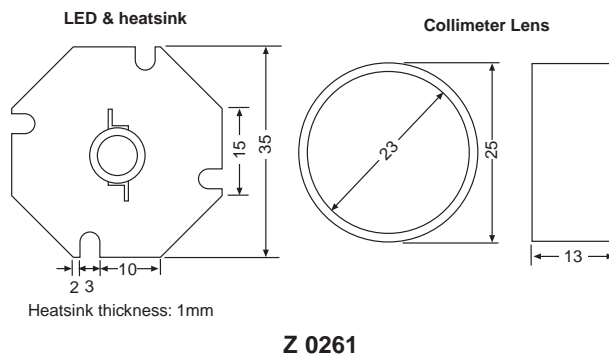
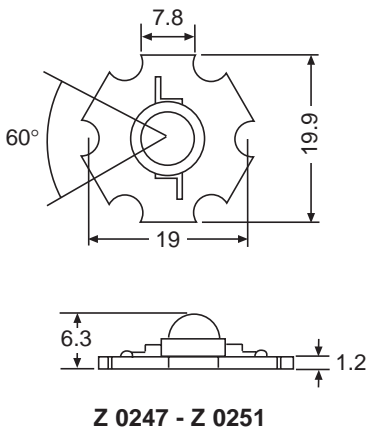


OPERATING SPECIFICATIONS:

All measured at 350mA

| | Z 0247 | Z 0248 | Z 0250 | Z 0251 | Z 0252 | Z 0261 |
|---------------------------|------------|------------|------------|----------------------|----------------------|----------------------|
| Colour | Red | Green | Orange | White | Warm White | Warm White |
| Luminous Flux | 35 lm | 25 lm | 30 lm | 25 lm | 20 lm | 20 lm |
| Forward Voltage (min) | 2.0V | 3.0V | 2.0V | 3.0V | 3.0V | 3.0V |
| Forward Voltage (typical) | 2.5V | 3.3V | 2.2V | 3.5V | 3.5V | 3.5V |
| Forward Voltage (max) | 3.0V | 3.8V | 2.75V | 3.8V | 3.8V | 3.8V |
| Wavelength (min.) | 620 nm | 515 nm | 610 nm | 5000 λ D/CCT | 2850 λ D/CCT | 2850 λ D/CCT |
| Wavelength (max.) | 630 nm | 535 nm | 620 nm | 8000 λ D/CCT | 3800 λ D/CCT | 3800 λ D/CCT |
| Thermal Resistance* | 15°C/W | 15°C/W | 15°C/W | 15°C/W | 15°C/W | 15°C/W |
| Temperature coefficient | -2mV/°C | -2mV/°C | -2mV/°C | -2mV/°C | -2mV/°C | -2mV/°C |
| Reverse current (max) | 50 μ A | 50 μ A | 50 μ A | 50 μ A | 50 μ A | 50 μ A |

*junction to board.



GENERAL SPECIFICATIONS (absolute maximum ratings):

- DC forward current:350mA
- Peak pulse current:1000mA
- Reverse voltage:5V
- LED junction temperature (at 350mA):125°C
- Operating temperature:-30°C to 110°C
- Storage temperature:-40°C to 120°C
- Manual soldering time at 260°C (max): 5 seconds