POWERBR(ite)™ Technology
UAEP3626-X00
AlInGaP EPITAXIAL WAFER

FEATURES AND BENEFITS

- IMBEDDED DISTRIBUTIVE BRAGG REFLECTOR FOR SUPERIOR BRIGHTNESS
- EXCELLENT WAVELENGTH AND BRIGHTNESS UNIFORMITY
- NARROW SPECTRAL WIDTH
- GROWN IN UOE HIGH VOLUME MOCVD REACTORS, OFFERING HIGH POWER AND PERFORMANCE
- OUTSTANDING PERFORMANCE OVER TEMPERATURE
- MULTIPLE QUANTUM WELL STRUCTURE
- THREE INCH WAFERS REDUCE DIE COST

CHARACTERISTICS

- DIAMETER: 76.2mm ± XX
- THICKNESS: 375±25 microns
- SUBSTRATE: GaAs
- LAYER: AlInGaP
- TOP LAYER: GaP

Electro-Optical Characteristics @ 25° C, 20 mA DC

Parameter	Symbol	Min	Typical	Max	Units
Luminous Intensity	I_v	75		200	mcd
UAEP3626-BC0	I_v	90	100		mcd
UAEP3626-DE0	I_v		130		mcd
UAEP3626-F00	I_v		150		mcd
Dominant Wavelength	λ_d	618	626	634	nm
Peak Wavelength	λ_p		633		nm
Spectral Width (FWHM)	$\Delta\lambda$		18		nm
Forward Voltage	Vf	1.8		2.5	V

NOTES:

1. Electro-Optical Characteristics are measured using die from other EPI wafers in the same lot mounted on TO-46 headers however, as fabrication conditions will influence the final performance of the LED, the electrical and optical characteristics of chips and bare die manufactured from UOE wafers is not guaranteed.
2. Optical power is determined by measuring bare die mounted on TO-46 headers using an integrating sphere. An index matching encapsulent over the die is not used to enhance this measurement.
3. A tolerance of ± 15% on brightness level, and ± 2 nm on chromaticity, due to measuring variations applies.
4. Typical values are provided for information only but are within the range of average values of acceptable sample sizes.
5. Maximum ratings are package dependent. The forward currents are not limited by the die but by the effect of the package Design and construction on the junction temperature of the LED.
6. Forward voltage can be affected by the metals technology used in the fabrication of the die.
7. The Electro-Optical characteristics are based on a typical die dimension of 0.012 X 0.012 X 0.0015 with a 100 um contact diameter.
8. The Dominant wavelength measurement is calculated from the 1931 2° CIE Chromaticity Diagram.

UNIROYAL Optoelectronics 3401 Cragmont Drive, Tampa, Florida 33619 U.S.A.
www.uniroyalopto.com ♦ (813) 630-9100 ♦ (800) 634-8491 ♦ sales@uniroyalopto.com