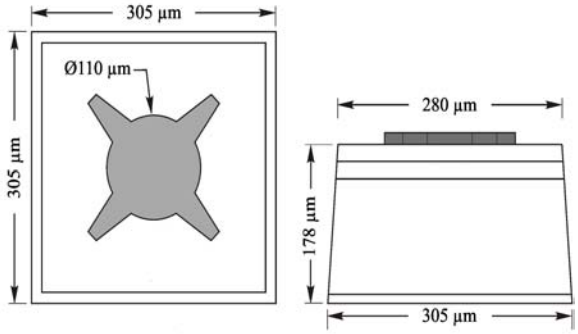
POWERBR(ite)™ Technology

UAPRX650-XXX

HIGH PERFORMANCE **ROYAL RED** LED DIE

Maximum Ratings @ T_A = 25° C (Based upon T 1 ¾ Package)

DC Forward Current	30mA
Peak Forward Current (<10ms,1/10 Duty cycle)	100mA
Led Junction Temp	100° C
Forward Voltage	2.5V DC
Reverse Voltage	-5.0 V DC
Operating Temperature Range	-40°C - +85°C
Storage Temperature Range	-40°C - +100°C



Typical Electo-Optical Characteristics @ 25° C, 20 mA DC

Part Code	Optical Power mW	Luminous Intensity Iv, mcd	Forward Voltage V_f, V	Reverse Current I_r @ 5V, uA	Peak Wavelength λ_p nm	Typical Dominant Wavelength λ_d nm			Spectral Width (FWHM) $\Delta\lambda$ nm	Series Resistance R_s
	Typical	Typical	Typ	Max	Typ	Min	Avg	Max	Typ	Typ
0B2	0.9 - 1.2	15 – 20	2.0	10.0	670	640	650	660	18	7
0C2	1.2 – 1.6	20 – 30	2.0	10.0	670	640	650	660	18	7
0F2	2.5 – 3.0	30 - 45	2.0	10.0	670	640	650	660	18	7

Mechanical Specifications – 12 Mil LED

Die Size	305 um x 305 um ± 25 um. (0.012" X 0.012" ± 0.001")
Die Thickness	178 um ± 25 um (0.007" ± 0.001") Bond Pad: 110 um diameter
Contact Metal	(P) Au
Backside Metal	(N) Au

Options

- LED Die, Sample Tested, with rejects not inked or removed, whole wafer on 200mm X 175mm tape. UAPRA650-XXX
- LED Die, 100% Electrically Tested, with rejects removed, whole wafer on 200mm X 175mm tape. UAPRB650-XXX

Notes:

1. The luminous intensity is determined by sample testing unencapsulated die with a beam candela integrating fixture. A ± 15% tolerance applies due to measuring variations.

2. The dominant wavelength is determined by testing header mounted bare LED die with a spectral radiometer. A ± 2nm tolerance applies due to measuring variations.

3. Sample electrical testing is performed with die on header. 100% electrically tested product is probe tested prior to wafer dicing.

4. Maximum ratings are package dependent. Ratings were determined using a T-1 ¾ style package for the electrical drive characterization data cited. Ratings for other package types will differ. The forward current is not limited by the die but by the effect of the package on the device junction temperature.

5. All die products conform to the listed specifications when packaged and operated within the maximum limits shown above. Typical values are provided for information only but are within the range of expected values of acceptable sample sizes.

6. A shipping tolerance of ± 10% applies to all deliveries.

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