

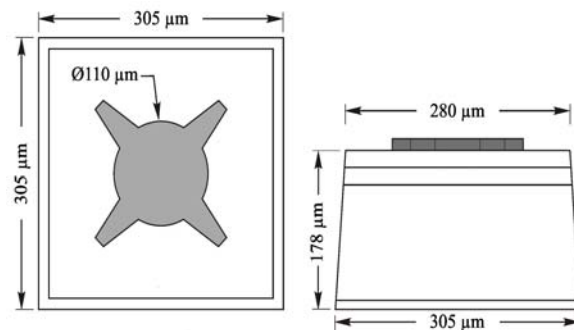
POWERBR(ite)TM Technology

UAPRX618-XXX

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

Part Code	Luminous Intensity I _v , 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) Δλ nm	Series Resistance R _s
	Typical	Typ	Max	Typ	Min	Avg	Max	Typ	Typ
0B2	90 - 100	2.0	2.4	10.0	613	618	623	18	7
0D2	110 - 125	2.0	2.4	10.0	613	618	623	18	7
0E2	125 - 140	2.0	2.4	10.0	613	618	623	18	7
0F2	140 - 155	2.0	2.4	10.0	613	618	623	18	7
0H2	170 - 190	2.0	2.4	10.0	613	618	623	18	7

Mechanical Specifications

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")		
Contact Metal	(P)	Au	
Backside Metal	(N)	Au	

Options

- LED Die, Sample Tested, whole wafer on tape, rejects not inked out or removed: UAPRA618-XXX.
- LED Die, 100% Electrically Tested, with rejects removed, sold as "Known Good Die" on tape: UAPRB618-XXX.

Notes:

- The luminous intensity is determined by sample testing unencapsulated die with a beam candela integrating fixture. A ± 15% tolerance applies due to measuring variations.
- The dominant wavelength is determined by testing header mounted bare LED die with a spectral radiometer. A ± 2nm tolerance applies due to measuring variations.
- Sample electrical testing is performed with die on header. 100% electrically tested product is probe tested prior to wafer dicing.
- 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.
- 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.
- A shipping tolerance of ± 10% applies to all deliveries.