



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-038-106 REV.: 2

5.0mm Round Type LED Lamps

PART NO. : 383-2UBC/C470

ECN: _____

Page: 1/4

■ Features :

- Choice of various viewing angles
- Available on tape and reel.
- Reliable and robust

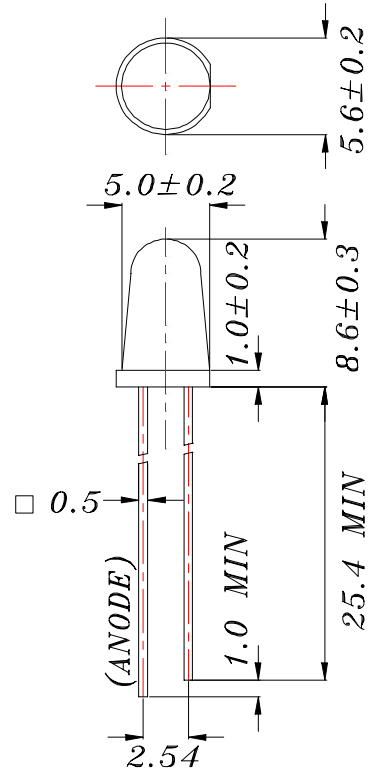
■ Descriptions :

- The series is specially designed for applications requiring higher brightness
- The led lamps are available with different colors, intensities,

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

■ Package Dimensions:



■ Notes :

1. All dimensions are in millimeters.
2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
3. Tolerances unless Dimension ±0.25mm.

PART NO.	Chip		Lens Color
	Material	Emitted Color	
383-2UBC/C470	InGaN/SiC	Blue	Water Clear

Office : 7C Building, Lian Hua Port Industrial District, Lian Hua Shan
 Bonded Processing Zone Pan Yu, Guang Zhou, China
 TEL. : (020)84860913,84860914
 FAX : (020)84860600
 http : //www.everlight.com

A0004068,X0004041



5.0mm Round Type LED Lamps

■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	30	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	Pd	120	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	IF(Peak)	100	mA
Reverse Voltage	VR	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	400	800	/	mcd	IF= 20 mA
Viewing Angle	2θ 1/2	/	6	/	deg	IF= 20 mA
Peak Wavelength	λ p	/	468	/	nm	IF= 20 mA
Dominant Wavelength	λ d	/	470	/	nm	IF= 20 mA
Spectrum Radiation Bandwidth	Δ λ	/	26	/	nm	IF= 20 mA
Forward Voltage	VF	/	3.5	4.3	V	IF= 20 mA
Reverse Current	IR	/	/	50	μ A	VR= 5 V



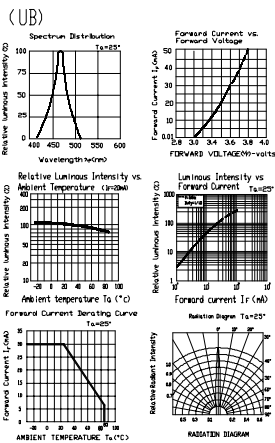
EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-038-106 REV.: 2

5.0mm Round Type LED Lamps

PART NO. : 383-2UBC/C470 ECN : _____ Page: 3/4

■ Typical Electro-Optical Characteristic Curves:





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-038-106 REV.: 2

5.0mm Round Type LED Lamps

PART NO. : 383-2UBC/C470 ECN : Page: 4/4

■ Reliability test items and conditions:

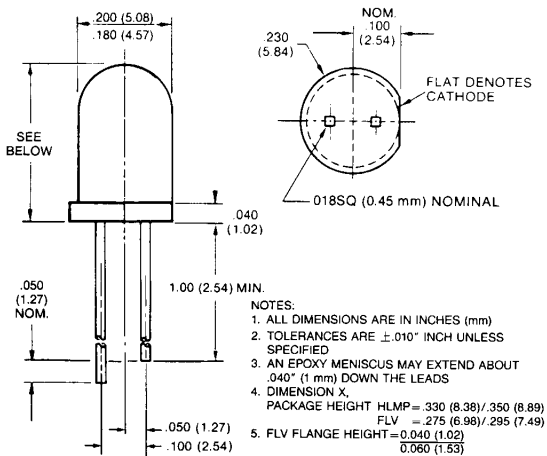
NO	Item	Test Conditions	Test Hours/Cycle		Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min } 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min } 10 sec L : -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP : 25°C IF = 20mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C / 85% RH	1000 HRS	76 PCS	0/1



**SECOND SOURCE T-1^{3/4}
SOLID STATE LAMPS**

**HIGH EFF. RED HLMP-3300 HIGH EFF. RED HLMP-3315
HIGH EFF. RED HLMP-3301 HIGH EFF. RED HLMP-3316
STANDARD RED FLV110**

PACKAGE DIMENSIONS



DESCRIPTION

Direct replacements for popular T-1^{3/4} lamps from Fairchild and Hewlett-Packard. The FLV110 is a Standard Red Lamp with a low profile (.285 inch) lens. HLMP-33XX parts are High Efficiency Red with a standard T-1^{3/4} package.

FLV110, HLMP-3300 and HLMP-3301 are diffused. HLMP-3315 and HLMP-3316 are non-diffused.

FEATURES

- Replace Fairchild and Hewlett-Packard devices
- Popular, general purpose lamps
- Wide and narrow viewing angle devices for direct view or backlighting
- Solid state reliability
- Sturdy leads for easier assembly



**SECOND SOURCE T-1¾
SOLID STATE LAMPS**

ELECTRO-OPTICAL CHARACTERISTICS (25°C Ambient Temperature)									
PARAMETER		SYMBOL	HLMP-3300	HLMP-3301	HLMP-3315	HLMP-3316	FLV* 110	UNITS	TEST CONDITIONS
Luminous Intensity	min.	I_v	2.0	4.0	12	20	0.8*	mcd	$I_f=10$ mA
	typ.		3.5	7.0	18	35	3.0*	mcd	$I_f=10$ mA
Forward voltage	max.	V_f	3.0	3.0	3.0	3.0	2.0	V	$I_f=10$ mA
	typ.		2.2	2.2	2.2	2.2	1.6	V	$I_f=10$ mA
Peak wavelength	typ.	λ_p	635	635	635	635	665	nm	$I_f=10$ mA
Capacitance	typ.	C	45	45	45	45	30	pF	V=0, f=1 MHz
Reverse breakdown voltage	min.	V_{BR}	5	5	5	5	5	V	$I_R=100\mu$ A
Total viewing angle between half Luminous Intensity Points	typ.	20½	65	65	35	35	70	degrees	

*For FLV110 Test $I_f=20$ mA

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ$ C Unless Otherwise Specified)	
Power dissipation	135 mW
Derate linearly from 25°C	1.8 mW/°C
Storage and operating temperatures	-55°C to +100°C
Lead soldering time @ 260°C (See Note 1)	5 sec.
Continuous forward current	30 mA
Peak forward current (1 μ sec pulse, 0.3% duty cycle) (FLV110 1 amp)	90 mA
Reverse voltage	5.0 V

NOTES
1. From a point minimum 1/16 inch (1.6 mm) from the bottom of the lamp.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES
(25°C Free Air Temperature Unless Otherwise Specified)

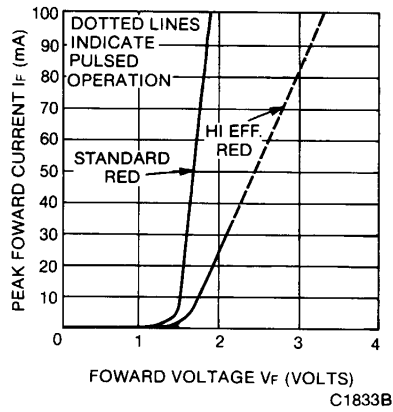


Fig. 1. Forward Current vs. Forward Voltage

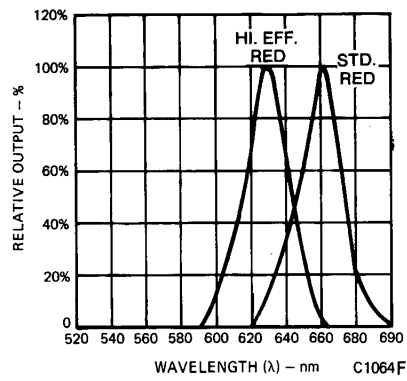


Fig. 2. Spectral Distribution

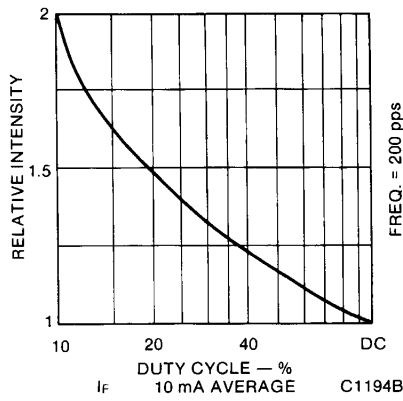


Fig. 3. Luminous Intensity vs. Duty Cycle

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.