



High Power LED

1W Edixeon® Emitter

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Edixeon® emitters are one of the highest flux LEDs in the world by Edison Opto. Edixeon® emitters are designed to satisfy more and more Solid-State lighting High Power LED applications for brilliant world such as flash light, indoor and outdoor decoration light. Edixeon® emitters are designed by particular package for High Power LED. 1W Edixeon® white has typical 55 lumens @350mA. Unlike most fluorescent sources, Edixeon contains no mercury and has more energy efficient than other incandescent light source.

Features

- Various colors
- More energy efficient than incandescent and most halogen lamps
- Low voltage operated
- Instant light
- Long operating life

Typical Applications

- Reading lights
- Portable flashlight
- Up-lighters and Down-lighters
- LCD Backlights
- General lighting
- Contour lights
- Ceiling lights
- Garden lighting
- Decoration lights
- Architectural lighting
- Beacon lights

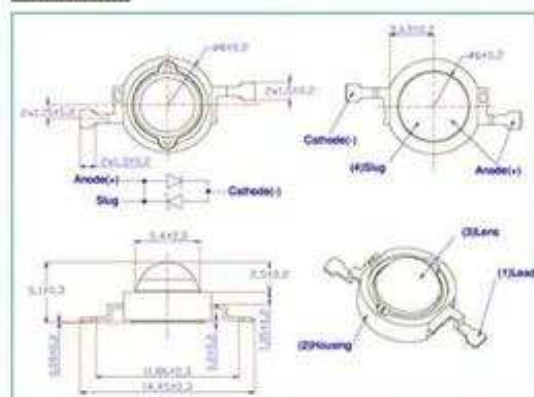
Edixeon® Technology

- $T_{jmax} = 125^{\circ}C$
- High Lumen performance
- Low thermal resistance $15-18^{\circ}C/W$
- RoHS compliant
- Industrial best lumen maintenance — 50,000hrs life at I_{Fmax} with 70% lumen if T_j is lower than $70^{\circ}C$

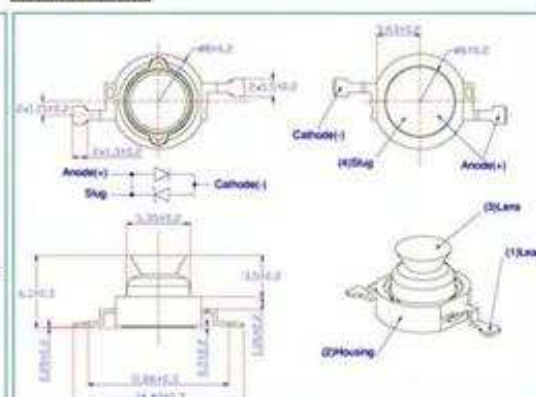


Package Outlines

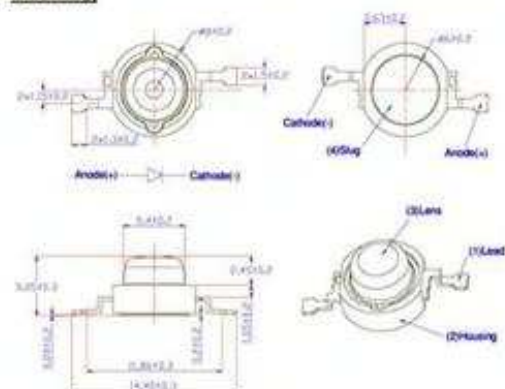
Lambertian



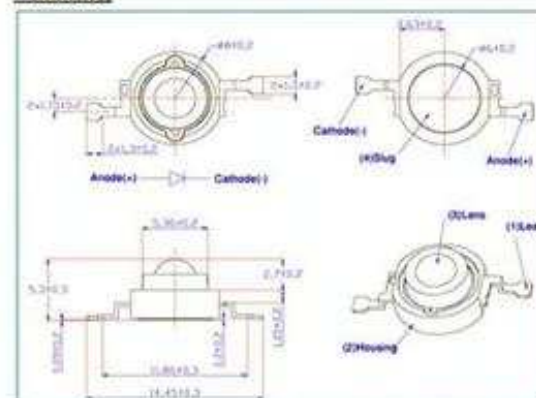
Side Emitting



Batwing



Focusing



Notes:

1. All dimensions are in mm.
2. Drawings are not to scale.
3. It is strongly recommended that the temperature of lead be not higher than 55°C.
4. Lambertian and side emitting series slug has polarity as anode.
5. It is important that the slug can't contact aluminum surface, It is strongly recommended that there should coat a uniform electrically isolated heat dissipation film on the aluminum surface.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
DC Forward Current	I_F	350	mA
Peak pulse current;(tp ≤ 100µs, Duty cycle=0.25)	I_{pulse}	500	mA
Reverse Voltage	V_R	5	V
Forward Contact Voltage	V_{FC}	16	V
LED junction Temperature	T_J	125	°C
Operating Temperature	T_{opr}	-30 ~ +110	°C
Storage Temperature	T_{stg}	-40 ~ +120	°C
ESD Sensitivity (Lambertian and Side emitting)	V_B	4,000	V
ESD Sensitivity (Batwing and Focusing)	V_B	500	V
Manual Soldering Time at 260°C (Max.)	T_{sol}	5	seconds

- Notes: 1. Proper current derating must be observed to maintain junction temperature below the maximum.
 2. LEDs are not designed to be driven in reserve bias.

Luminous Flux & Radiometric Power^[1] Characteristics at $I_F=350\text{mA}(T_J=25^\circ\text{C})$:

Lens Item	Part Name	Color	Flux			Units
			Min.	Typ.	Max.	
Lambertian Side Emitting	EDEW-1xA1	White	30.3	55.0	--	lm
	EDEW-1xA6	White	30.3	45.0	--	lm
	EDEW-1xA7	White	30.3	60.0	--	lm
	EDEX-1xAx	Warm White	17.9	40.0	--	lm
	EDER-1xAx	Red	23.3	45.0	--	lm
	EDEO-1xAx	Red Orange	23.3	45.0	--	lm
	EDEA-1xAx	Amber	23.3	40.0	--	lm
	EDET-1xAx	True Green	30.3	60.0	--	lm
	EDEB-1xAx	Blue	8.2	15.0	--	lm
	EDEC-1xAx	Royal Blue ^[1]	113.9	220	--	mW

Lens Item	Part Name	Color	Flux			Units
			Min.	Typ.	Max.	
Batwing Focusing	EDEW-1xAx	White	30.3	45.0	--	lm
	EDEX-1xAx	Warm White	17.9	40.0	--	lm
	EDER-1xAx	Red	23.3	40.0	--	lm
	EDEO-1xAx	Red Orange	23.3	40.0	--	lm
	EDEA-1xAx	Amber	23.3	38.0	--	lm
	EDET-1xAx	True Green	30.3	50.0	--	lm
	EDEB-1xAx	Blue	8.2	13.0	--	lm
	EDEC-1xAx	Royal Blue ^[1]	113.9	200	--	mW

Forward Voltage Characteristics at $I_F=350\text{mA}(T_J=25^\circ\text{C})$:

Lens Item	Part Name	Color	V_F			Units	
			Min.	Typ.	Max.		
Lambertian Side Emitting	EDEW-1xAx	White	3.1	--	4.0	V	
	EDEW-1xA6	White	3.1	--	4.3	V	
	EDEW-1xA7	White	2.8	--	3.7	V	
	EDEX-1xAx	Warm White	2.8	--	4.3	V	
	EDER-1xAx	Red	2.0	--	3.0	V	
	Batwing Focusing	EDEO-1xAx	Red Orange	2.0	--	3.0	V
	EDEA-1xAx	Amber	2.0	--	3.0	V	
	EDET-1xAx	True Green	2.8	--	4.0	V	
	EDEB-1xAx	Blue	3.1	--	4.3	V	
	EDEC-1xAx	Royal Blue	3.1	--	4.3	V	

Dominant Wavelength or Peak Wavelength⁽¹⁾ or Color Temperature

Characteristics at $I_F=350\text{mA}(T_J=25^\circ\text{C})$:

Lens Item	Part Name	Color	$\lambda_d/\lambda_p^{(1)}/\text{CCT}$			Units
			Min.	Typ.	Max.	
Lambertian Side Emitting Batwing Focusing	EDEW-1xAx	White	4500	--	10000	K
	EDEX-1xAx	Warm White	2800	--	3800	K
	EDER-1xAx	Red	620	--	630	nm
	EDEO-1xAx	Red Orange	610	--	620	nm
	EDEA-1xAx	Amber	585	--	595	nm
	EDET-1xAx	True Green	515	--	535	nm
	EDEB-1xAx	Blue	460	--	475	nm
	EDEC-1xAx	Royal Blue ⁽¹⁾	440	--	460	nm

Temperature Coefficient of Forward Voltage & Thermal Resistance Junction to Case

Characteristics at $I_F=350\text{mA}(T_J=25^\circ\text{C})$:

Lens Item	Part Name	Color	$\Delta V_F/\Delta T$		$R_{\theta_{j-c}}$	
			Typ.	Units	Typ.	Units
Lambertian Side Emitting Batwing Focusing	EDEW-1xAx	White	-2	mV/°C	15	°C/W
	EDEX-1xAx	Warm White	-2	mV/°C	15	°C/W
	EDER-1xAx	Red	-2	mV/°C	18	°C/W
	EDEO-1xAx	Red Orange	-2	mV/°C	18	°C/W
	EDEA-1xAx	Amber	-2	mV/°C	18	°C/W
	EDET-1xAx	True Green	-2	mV/°C	15	°C/W
	EDEB-1xAx	Blue	-2	mV/°C	15	°C/W
	EDEC-1xAx	Royal Blue	-2	mV/°C	15	°C/W