



СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

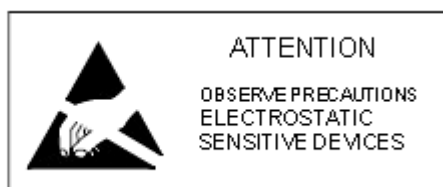
Product Name: 1w 810nm IR LED

Version No.: BLD-HP001IR810-E42

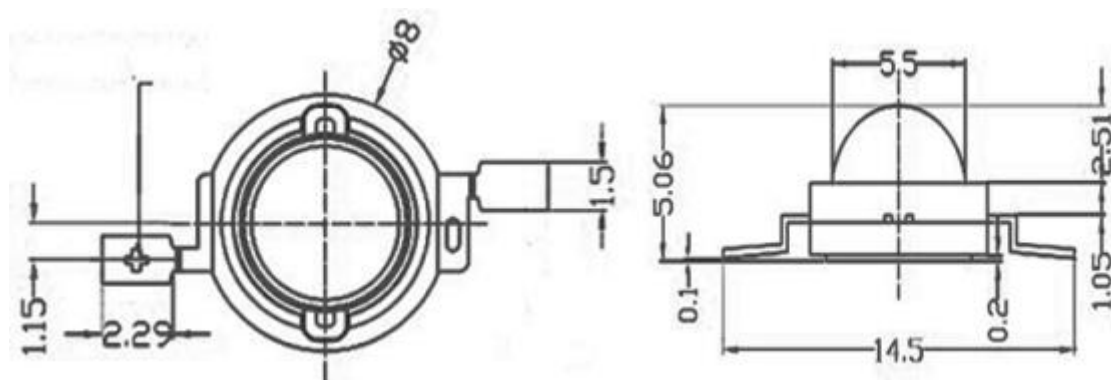
Product Description:

- 1 watt High Power LED
- Colloid Color: Transparent
- Emission Color: Red
- Viewing Angle: 120°

Dice Material: GaInN



Outline Drawing



Notes :

1. All dimensions area in mm tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.
2. An epoxy meniscus may extend about 1.2mm down the leads.
3. Burr around bottom of epoxy may be 0.5mm max.

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Items	Symbol	Maximum	Units
DC Forward Current	I_F	350	mA
Peak forward current	I_{FP}	500	mA
Reverse Voltage	V_R	5	V
Power consumption	P_D	1	W
Operation Temperature	T_{opr}	$-20 \sim +75$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-30 \sim +80$	$^\circ\text{C}$
Lead Soldering Temperature	T_{sol}	Max 260°C for 5 sec Max. (3mm from the base of the body)	

* Pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$



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Product Optical Properties (Ta = 25°C)

Item	Symbol	Conditions	Min	Averag	Max	Units
Forward Voltage	V_F	$I_F = 350\text{mA}$	1.5	$\bar{e}$ ----	1.6	V
	V_F	$I_F = 400\text{mA}$	1.5	----	1.6	V
Reverse current	I_R	$V_R = 5\text{V}$	---	-----	10	μA
Peak Wavelength	λ_p	$I_F = 350\text{mA}$	805	-----	810	nm
Chromaticity Coordinates	X	$I_F = 350\text{mA}$	-----	-----	---	----
	Y	$I_F = 350\text{mA}$	-----	-----	----	----
Luminous Flux	I_v	$I_F = 350\text{mA}$	0.5	----	1	lm
50% power Angle	$2\theta^{1/2}\text{H-H}$	$I_F = 350\text{mA}$	---	60	---	deg
	$2\theta^{1/2}\text{V-V}$	$I_F = 350\text{mA}$	----	---	---	deg

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
		Infrared	
DC Forward Current(mA)	If	350	mA
Peak Pulse Current(mA)	If	500	mA
Reverse Voltage	VR	5	V
LED Junction Temperature	Tj	125	°C
Operation Temperature	Topr	-20--65	°C
Storage Temperature	Tstg	-20--70	°C
Soldening Temperature	Tsol	260	°C
ESD Sensitivity	Vb	4000	V