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AUSTRIA



IB5-43B8-830

- Infrared Light Emitting Diode
- 830 nm, 100 mW/sr
- GaAIAs structure
- 5 mm epoxy package



Description



IB5-43B8-830 is an **GaAIAs** based IR LED, typically emitting at 830 nm with a luminous intensity of 100 mW/sr. It comes in a hermetically sealed clear 5 mm epoxy resin.

Maximum Ratings*

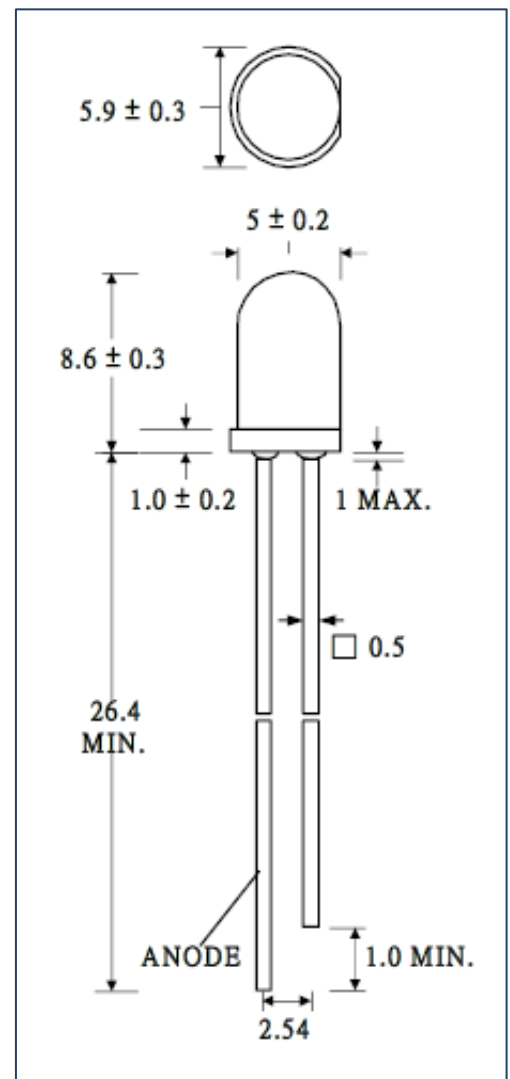
Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation, DC	P_D		80	mW
Pulse Forward Current**	I_{FP}		100	mA
Reverse Voltage	V_R		5.0	V
Operating Temperature	T_{OPR}	- 40	+ 85	°C
Storage Temperature	T_{STG}	- 40	+ 85	°C
Soldering Temperature (t_{max} = 3s)	T_{SOL}		+ 260	°C

* Operating close to or exceeding these parameters may damage the device

** duty cycle = 10 % @ 1 kHz

Electro-Optical Characteristics ($T_{CASE} = 25^\circ\text{C}$)

Parameter	Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength	$I_F = 20\text{mA}$	λ_P		830		nm
Spectral Width (FWHM)	$I_F = 20\text{mA}$	$\Delta\lambda$		35		nm
Forward Voltage	$I_F = 20\text{mA}$	V_F		1.45	1.6	V
Reverse Current	$V_R = 5\text{V}$	V_R			10	μA
Radiated Output Power	$I_F = 20\text{mA}$	I_R	60	100		mW/
Viewing Half Angle	$I_F = 20\text{mA}$	$\Theta_{1/2}$		15		deg.
Rise / Fall Time	$I_F = 50\text{mA}$	t_r/t_f		25/14		ns

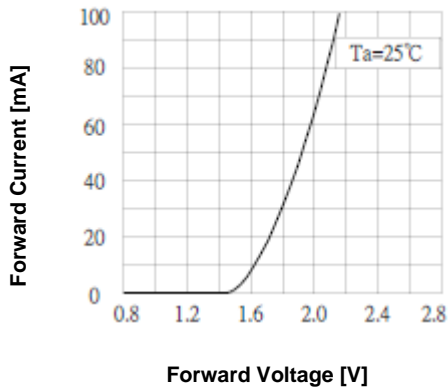


All dimensions in mm

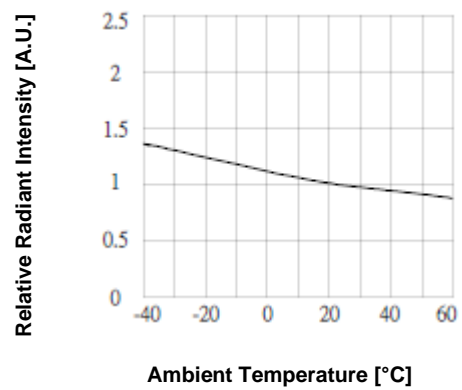


Typical Performance Curves

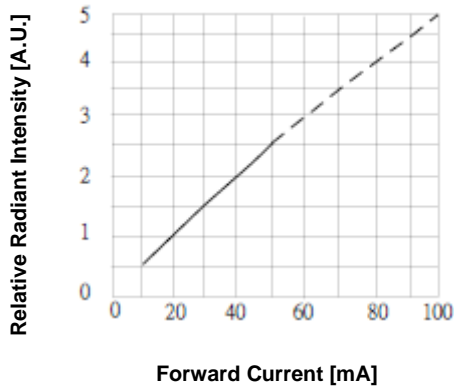
Forward Current vs. Forward Voltage



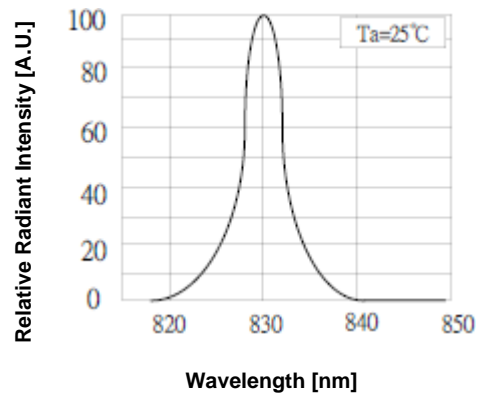
Relative Radiant Intensity vs. Ambient Temperature



Relative Radiant Intensity vs. Forward Current



Relative Spectral Emission



Radiation Characteristics

