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## IB5-43B8-700

- Infrared Light Emitting Diode
- 700 nm, 250 mW/sr
- GaAIAs structure
- 5 mm epoxy package



### Description



**IB5-43B8-700** is an **GaAIAs** based IR LED, typically emitting at 700 nm with a luminous intensity of 250 mW/sr. It comes in a hermetically sealed clear 5 mm epoxy resin.

### Maximum Ratings\*

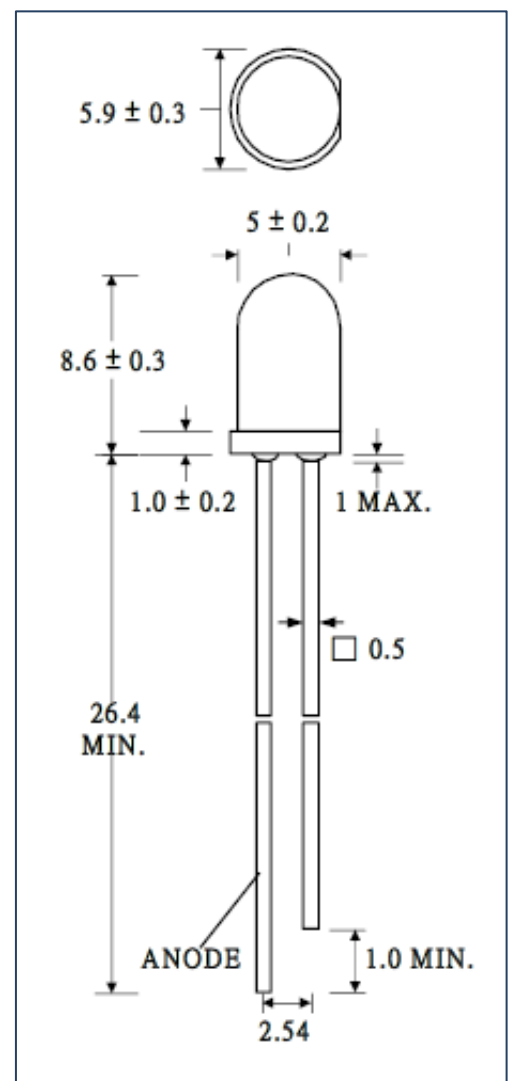
Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation, DC	$P_D$		105	mW
Pulse Forward Current**	$I_{FP}$		100	mA
Reverse Voltage	$V_R$		5.0	V
Operating Temperature	$T_{OPR}$	- 40	+ 85	°C
Storage Temperature	$T_{STG}$	- 40	+ 85	°C
Soldering Temperature ( $t_{max}$ = 3s)	$T_{SOL}$		+ 260	°C

\* 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	$I_F = 20\text{mA}$	$\lambda_P$		700		nm
Spectral Width (FWHM)	$I_F = 20\text{mA}$	$\Delta\lambda$		26		nm
Forward Voltage	$I_F = 20\text{mA}$	$V_F$		1.75	2.1	V
Reverse Current	$V_R = 5\text{V}$	$V_R$			10	$\mu\text{A}$
Radiated Output Power	$I_F = 20\text{mA}$	$I_R$	160	250		mW/
Viewing Half Angle	$I_F = 20\text{mA}$	$\Theta_{1/2}$		15		deg.
Rise / Fall Time	$I_F = 50\text{mA}$	$t_r/t_f$		40/30		ns

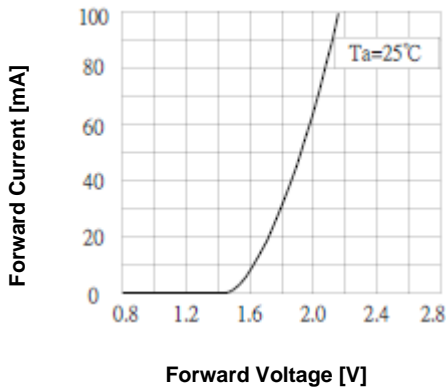


All dimensions in mm

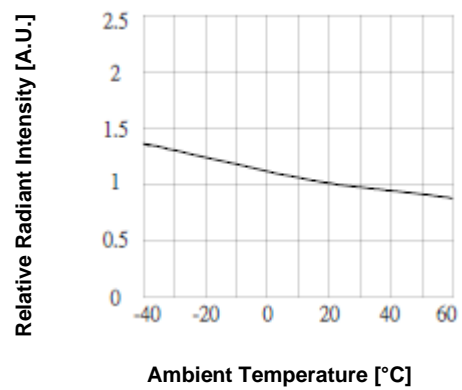


## Typical Performance Curves

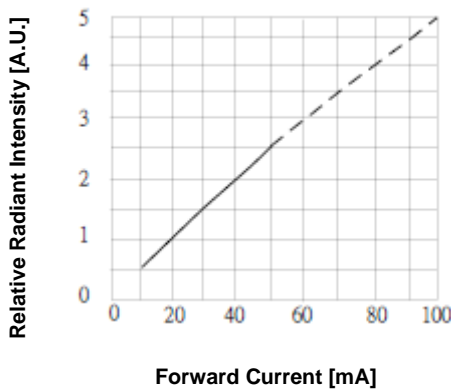
### Forward Current vs. Forward Voltage



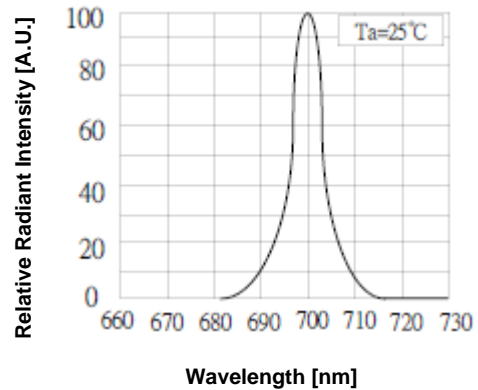
### Relative Radiant Intensity vs. Ambient Temperature



### Relative Radiant Intensity vs. Forward Current



### Relative Spectral Emission



### Radiation Characteristics

