

# LT1092A Series

Molded Interconnection  
Device

## Model No.

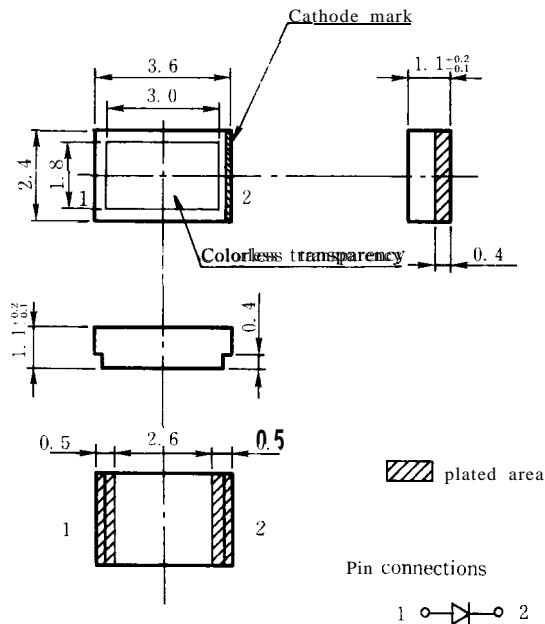
LT1D92A Red GaAsP/GaP  
LT1E92A Yellow-green GaP

## Features

1. Radiation size 1.8×3.0mm
2. Colorless transparency lens type
3. Taped models : Tape width 8mm, 3,000 pcs/reel

## Outline Dimensions

(Unit : mm)



Unspecified tolerance :  $\pm 0.1$ mm

Regarding the taping specifications, please see "Taped Models" of Appendix

SHARP

## LT1□92A

## ■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	LT1D92A				Unit
		LT1E92A				
Power dissipation	P	84				mW
Continuous forward current	IF	30				mA
*1 Peak forward current	IFM	50				mA
Derating factor	DC	0.40				mA/°C
	Pulse	0.67				mA/°C
Reverse voltage	VR	5				V
Operating temperature	Topr	-25 to +85				°C
Storage temperature	Tstg	-25 to +100				°C

\*1 Duty ratio = 1/10, Pulse width = 0.1 ms

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**LT1D92A(Red)**

**Electro-optical Characteristics**

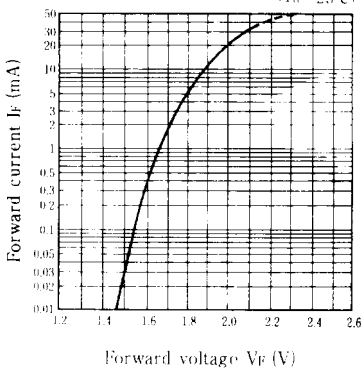
(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_f$	LT1D92A	$I_f = 20\text{mA}$		2.0	2.8	V
*2 Luminous intensity	$I_v$	LT1D92A	$I_f = 20\text{mA}$	4.3	15.0	--	mcd
Peak emission wavelength	$\lambda_p$	LT1D92A	$I_f = 20\text{mA}$		635		nm
Spectrum radiation bandwidth	$\Delta\lambda$	LT1D92A	$I_f = 20\text{mA}$		35	-	nm
Reverse current	$I_R$	LT1D92A	$V_R = 4\text{V}$			10	$\mu\text{A}$
Terminal capacitance	$C_t$	LT1D92A	$V = 0\text{V}$ $f = 1\text{MHz}$		20		pF
Response frequency	$f_c$	LT1D92A					MHz

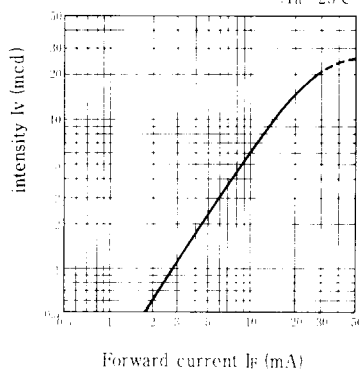
\*2 Tolerance :  $\pm 15\%$

**Characteristics Diagrams**

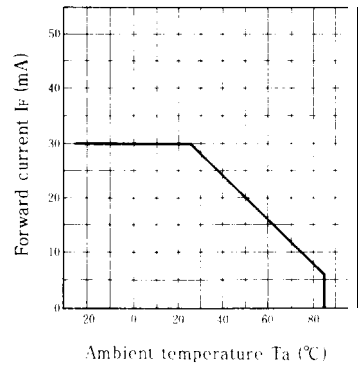
**Forward Current vs. Forward Voltage**



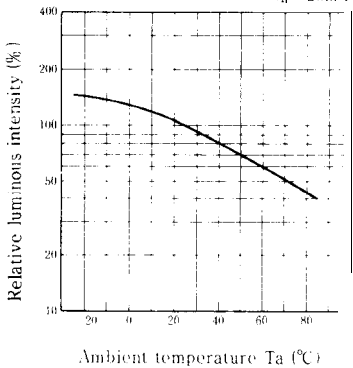
**Luminous Intensity vs. Forward Current**



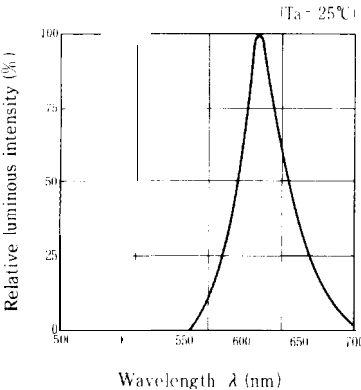
**Forward Current Derating Curve**



**Relative Luminous Intensity vs. Ambient Temperature**



**Spectrum Distribution**



### LTI E92A(Yellow-green)

(Ta = 25°C)

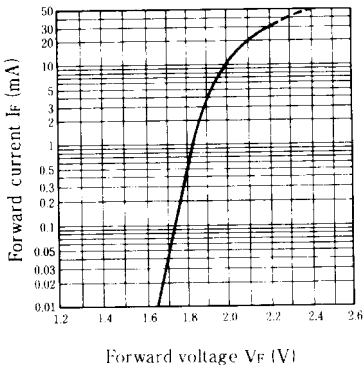
#### Electro-optical Characteristics

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	LT1E92A	$I_F = 20\text{mA}$		2.1	2.8	V
*2 Luminous intensity	$I_v$	LT1E92A	$I_F = 20\text{mA}$	13.6	32.0		mcd
Peak emission wavelength	$\lambda_P$	LT1E92A	$I_F = 20\text{mA}$		565		nm
Spectrum radiation bandwidth	$\Delta\lambda$	LT1E92A	$I_F = 20\text{mA}$		30		nm
Reverse current	$I_R$	LT1E92A	$V = 4\text{V}$			10	$\mu\text{A}$
Terminal capacitance	$C_t$	LT1E92A	$V = 0\text{V}, f = 1\text{MHz}$	--	35		pF
Response frequency	$f_c$	LT1E92A					MHz

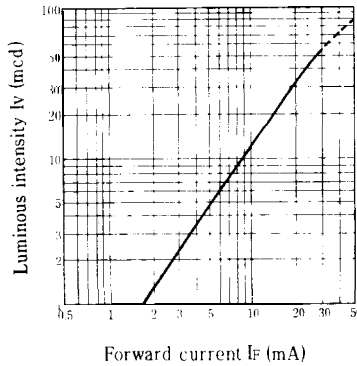
\*2 Tolerance :  $\pm 15\%$

#### Characteristics Diagrams

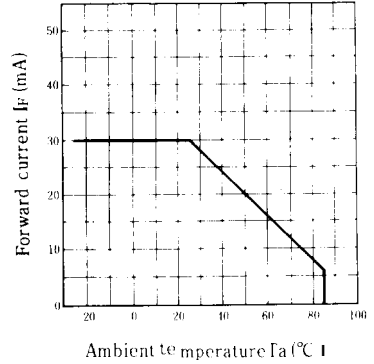
Forward Current vs. Forward Voltage (Ta = 25°C)



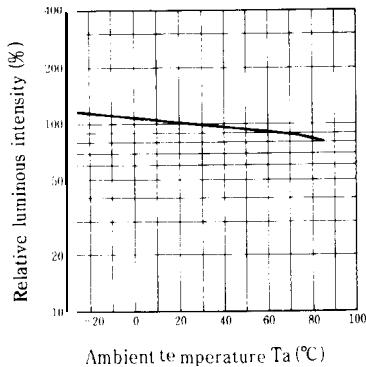
Luminous Intensity vs. Forward Current (Ta = 25°C)



Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature (If = 20mA)



Spectrum Distribution (Ta = 25°C)

