

LT93100 Series

Thin Case Mold Type
LED Panel Displays

Model No.

LT9310D Red

GaAsP/GaP

LT9310H Yellow

GaAsP/GaP

LT9310E Yellow-green

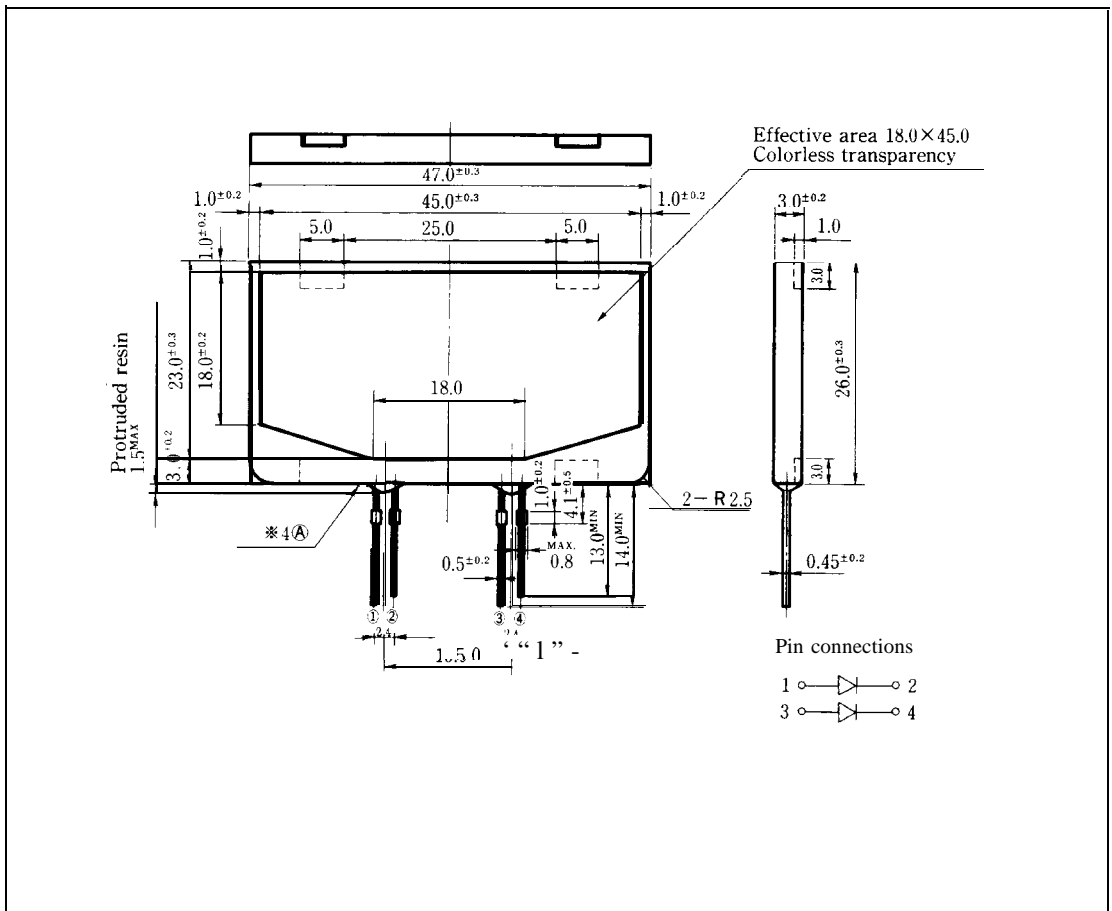
GaP

Features

1. Radiation size **18.0 x 45.0mm**
2. Thin case mold type

Outline Dimensions

(Unit: mm)



SHARP

LT9310CI

■ Absolute Maximum Ratings ※1

(Ta = 25°C)

Parameter	Symbol	LT9310D	LT9310H				Unit	
		LT9310E						
※2 Power dissipation	P	168	100				mW	
Continuous forward current	I _F	30	20				mA	
※3 Peak forward current	I _{FM}	50	50				mA	
Derating factor	DC	0.55	0.36				mA/°C	
	Pulse	0.91	0.91				mA/°C	
Reverse voltage	V _R	5	5				v	
Operating temperature	T _{opr}	-20 to +70						°C
Storage temperature	T _{stg}	-30 to +80						°C
※4 Soldering temperature	T _{sol}	260 (within 5 seconds)						°C

※1 Per chip

※2 Per lamp : 2 chips

※3 Duty ratio = 1/10, Pulse width = 0.1ms

※4 At the position of 4.1 mm from (A) level of outline dimensions

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LT9310D (Red)

■ Electro-optical Characteristics *1

(T_a = 25°C)

Parameter	Symbol	Model No	Conditions	MIN	TYP	MAX	Unit
Forward voltage	V _F	LT9310D	I _F = 20mA	-	2.0	2.8	V
**5 Luminous intensity	I _v	LT9310D	I _F = 20mA	8.0	16	-	mcd
Peak emission wavelength	λ _p	LT9310D	I _F = 20mA	-	635	-	nm
Spectrum radiation bandwidth	Δλ	LT9310D	I _F = 20mA	-	35	-	nm
Reverse current	I _R	LT9310D	V _R = 4V	-	-	10	μA
Response frequency	f _c	LT9310D	-	-	4	-	MHz

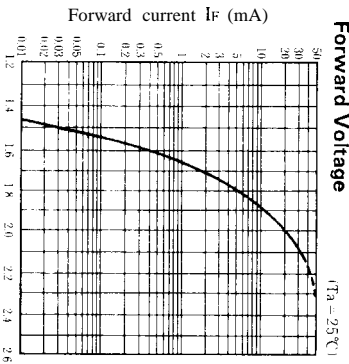
*1 Per chip

*5 Per lamp : 2 chips, Tolerance : ±30%

■ Characteristics Diagrams

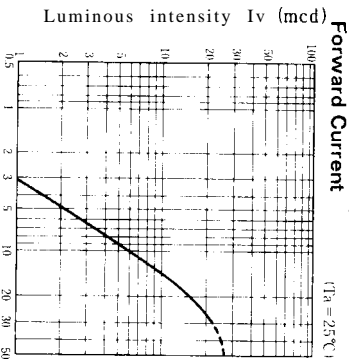
Forward Current vs.

Forward Voltage

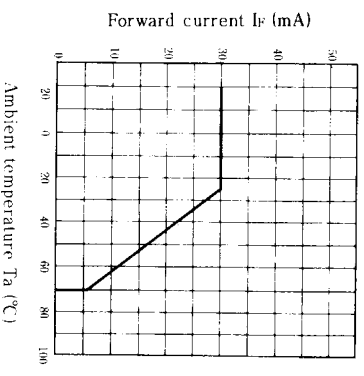


Luminous Intensity vs.

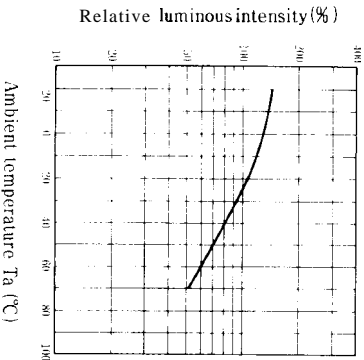
Forward Current



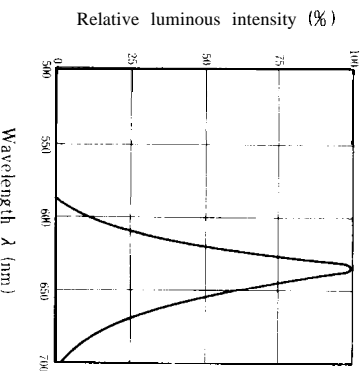
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature

(I_F = 20mA)

Spectrum Distribution

(T_a = 25°C)

LT931 OH (Yellow) / **LT931 OE** (Yellow-green)

■ **Electro-optical** Characteristics *1

(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	LT931OH	I _F = 10mA	—	1.9	2.5	V
		LT931OE	I _F = 20mA	—	2.1	2.8	
*5 Luminous intensity	I _v	LT931OH	I _F = 10mA	2.0	6.4	—	mcd
		LT931OE	I _F = 20mA	13	26	—	
Peak emission wavelength	λ _p	LT931OH	I _F = 10mA	—	585	—	nm
		LT931OE	I _F = 20mA	—	565	—	
Spectrum radiation bandwidth	Δλ	LT931OH	I _F = 10mA	—	30	—	nm
		LT931OE	I _F = 20mA	—	30	—	
Reverse current	I _R	LT931OH	V _R = 4V	—	—	10	μA
		LT931OE	V _R = 4V	—	—	10	
Response frequency	f _c	LT931OH	—	—	4	—	MHz
		LT931OE	—	—	4	—	

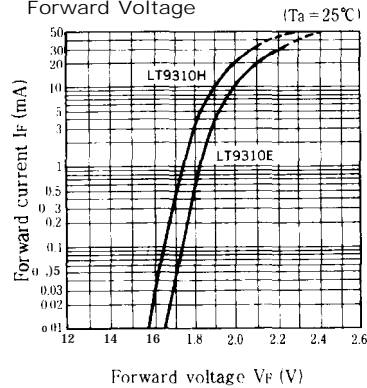
*1 Per chip

*5 Per lamp : 2 chips, Tolerance : ±30%

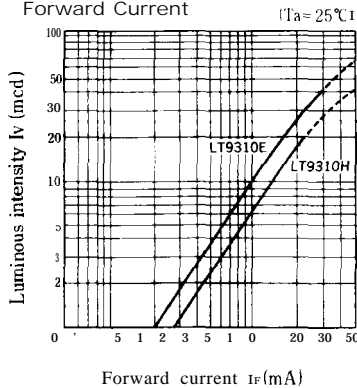
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■ **Characteristics Diagrams**

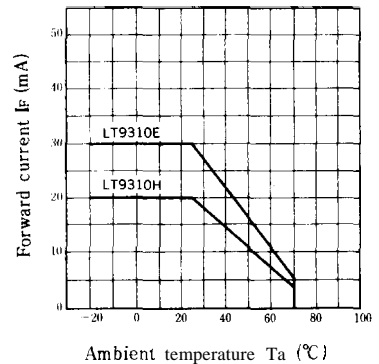
Forward Current vs. Forward Voltage



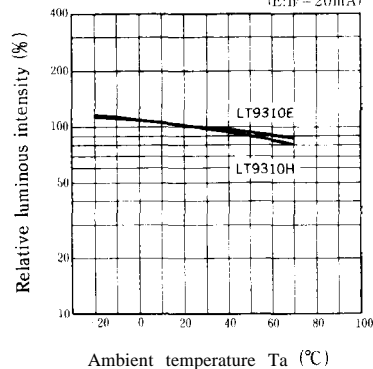
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution

