

LN145W

GaAlAs Red Light Emitting Diode

Light source for optical fiber communications,

■ Features

- Red light emission close to monochromatic light : $\lambda_p = 700$ nm
- High-power output, high-efficiency
- High coupling characteristics and suits to a plastic fiber
- High-speed response : -3 dB modulation of 10MHz
- Side-view flat resin package

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Power dissipation	P_D	120	mW
Forward current (DC)	I_F	40	mA
Pulse forward current	I_{FP}^*	400	mA
Reverse voltage (DC)	V_R	3	V
Operating ambient temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-30 to +100	°C

* $t_w = 10 \mu s$, Duty cycle = 10 %

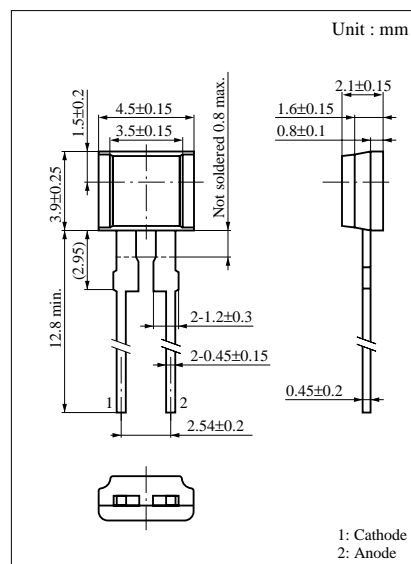
■ Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Radiant power	P_O	$I_F = 20mA$	2.5	4		mW
Peak emission wavelength	λ_p	$I_F = 20mA$		700		nm
Spectral half band width	$\Delta\lambda$	$I_F = 20mA$		35		nm
Forward voltage (DC)	V_F	$I_F = 20mA$		1.8	2.2	V
Reverse current (DC)	I_R	$V_R = 3V$			100	μA
Half-power angle	θ	The angle in which radiant intensity is 50%		80		deg.
Response time	t_r, t_f	$I_{FP} = 100mA$		30		ns
Cutoff frequency	f_C^*			10		MHz

*Cutoff frequency f_C : Frequency at which $10 \times \log \frac{P_O(at f = f_C)}{P_O(at f = 1MHz)} = -3$

[Element moisture resistance]

It is difficult to guarantee that the LN145W will meet the moisture resistance specifications (MIL-STD-202D) which are commonly guaranteed for semiconductors.



Caution for Safety

 **DANGER**

Gallium arsenide material (GaAs) is used in this product.

Therefore, do not burn, destroy, cut, crush, or chemically decompose the product, since gallium arsenide material in powder or vapor form is harmful to human health.

Observe the relevant laws and regulations when disposing of the products. Do not mix them with ordinary industrial waste or household refuse when disposing of GaAs-containing products.

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