NMOP-10024

875nm GaAlAs Infrared Emitter

The NMOP-10024 is high speed infrared LED in miniature side-facing device which is molded in a water clear package with spherical top view lens. This device is optimized for efficiency at peak wavelength 875nm and has a high radiant efficiency over a wide range of forward current.

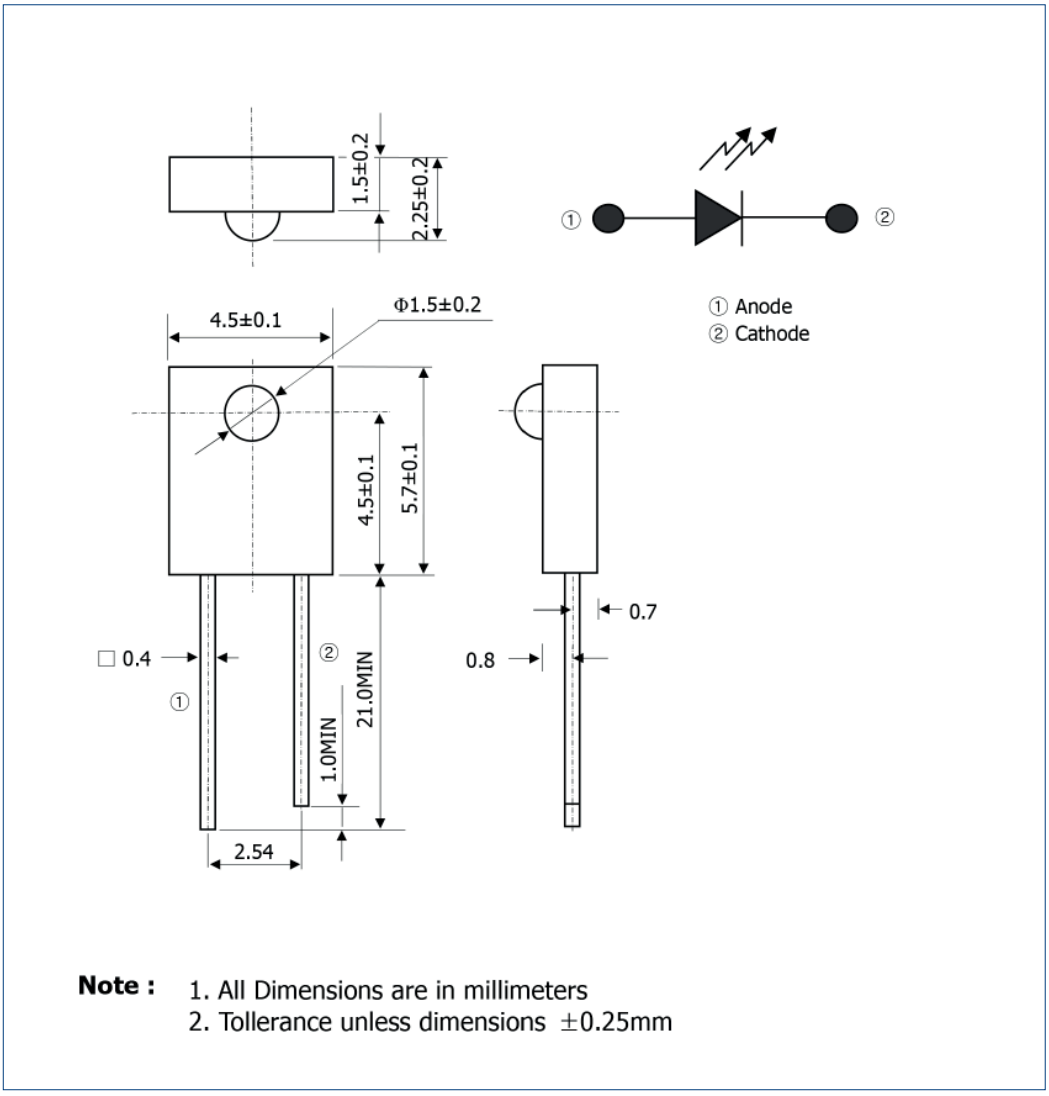
FEATURES

- Low forward voltage
- Ultra high-speed : 10ns rise time
- Very highly efficient GaAlAs IR LED
- 875nm peak wavelength
- Good linearity at high current
- Lead (Pb) free product – RoHS compliant

APPLICATIONS

- Optoelectronic switch
- Photo interrupter

PACKAGE DIMENSIONS



Note : 1. All Dimensions are in millimeters
2. Tollerance unless dimensions ±0.25mm

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MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating	Unit
Power dissipation	P_D	100	mW
Forward current	I_F	50	mA
Pulse forward current *1	I_{FP}	1	A
Reverse voltage	V_R	5	V
Operating temperature	T_{opr}	-25~ +85	° C
Storage temperature	T_{stg}	-40~+85	° C
Soldering temperature*2	T_{sol}	260	° C

*1. IFP conditions—Pulse width≤100us and Duty≤1%

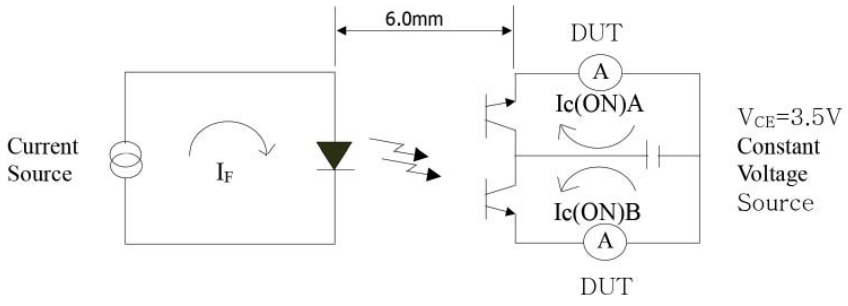
*2. Lead soldering temperature (2mm from case 5 sec.)

ELECTRO-OPTICALCHARACTERISTICS (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Light current	Ic(ON)	IF=4mA, VCE=3.5V	85		1870	μA
Forward Voltage	V_F	IF=20mA		1.3	1.6	V
		IF=100mA, tp≤100°μs, Duty≤1%		1.4	1.8	
		IF=1A, tp≤100μs, Duty≤1%		2.6	4.0	
Reverse current	I_R	VR=5V			10	μA
Peak emission wavelength	λp	IF=20mA		875		nm
Spectral bandwidth 50%	Δλ	IF=20mA		80		nm
Half angle	Δθ	IF=20mA		±10		deg.
Optical rise & fall time(10%~90%)	tr/tf	IF =20mA		10/6		ns

Test Method for Ic(ON)

The intensity testing method for infrared emitting diode



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