

NMOP-10144

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Phototransistor

The NMOP-10144 is a high-sensitivity NPN silicon phototransistor mounted in a clear plastic package. With lensed package this small phototransistor is designed to optimize the mechanical resolution coupling efficiency, cost and reliability.

Features

- Lensed for high sensitivity
- High reliability and stable characteristics
- Low-cost

Applications

- Optical counters
- Optical detectors
- Camera stroboscopes

* Please take proper steps in order to secure reliability and safety in required conditions and environments for this device.

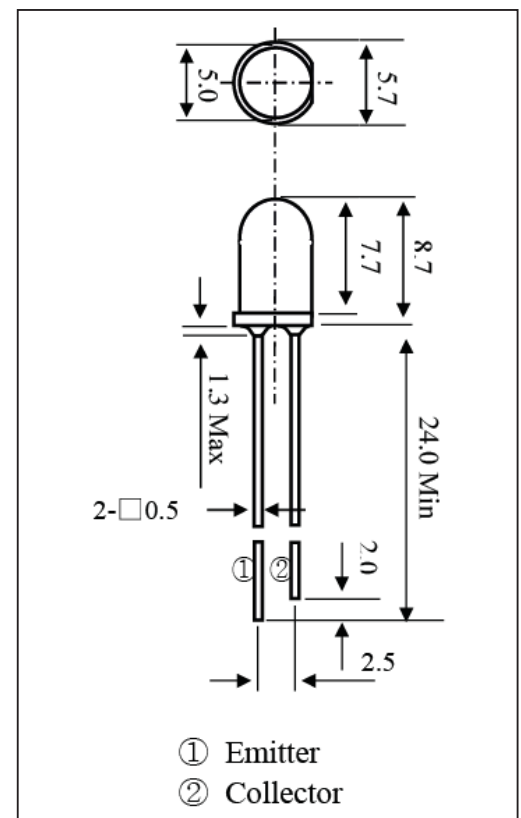
Maximum Ratings

($T_a=25^\circ\text{C}$)

Item	Symbol	Rating	Unit
C-E Voltage.	V_{CE0}	35	V
E-C Voltage.	V_{ECO}	6	V
Collector current.	I_C	20	mA
Collector Power dissipation.	P_D	75	mW
Operating temp.	T_{opr}	-25 ~ +85	$^\circ\text{C}$
Storage temp.	T_{stg}	-30 ~ +100	$^\circ\text{C}$
Soldering temperature*1	T_{sol}	260. $^\circ\text{C}$ within 5 seconds	

*1. Lead Soldering Temperature (2mm from case for 5sec.).

Dimensions (Unit: mm)



Electro-Optical Characteristics

($T_a=25^\circ\text{C}$)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector dark current.	I_{CE0}	$V_{CE0}=10\text{V}, E_e=0$	-	0.05	0.5	μA
Light current. *2	I_{CEL}	$V_{CE}=5\text{V}, E_e=1\text{mW}/\text{cm}^2$	2	7	-	mA
C-E Saturation Voltage	$V_{CE(SAT)}$	$I_C=0.5\text{mA}, E_e=1\text{mW}/\text{cm}^2$	-	0.2	0.4	V
Switching speeds	Rise time	$V_{CC}=10\text{V}, I_C=1\text{mA}$ $R=100\Omega$	-	2.5	.	$\mu\text{sec.}$
	Fall time		-	3.8	-	$\mu\text{sec.}$
Spectral Sensitivity	λ		450~1050			nm
Peak Sensitivity wavelength	λ_P			880		nm
Half angle	$\Delta\theta$			± 20		deg.

*2 Tolerance = $\pm 30\%$