

PD414PI High Speed PIN Photodiode for Optical Space Transmission

APPLICATIONS:

- AV equipment
- Personal computers
- Portable information terminal equipment

FEATURES

- High speed response (cut-off frequency: 40 MHz)
- Built-in visible light cut-off filter
(peak sensitivity wavelength: $\lambda_p = \text{TYP. } 960 \text{ nm}$)
- Half intensity angle: $\Delta\theta: \pm 30^\circ$
- Lead bending typing compatible

ABSOLUTE MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$

PARAMETER	SYMBOL	RATING	UNIT
Reverse voltage	V_R	30	V
Operating temperature	T_{OPR}	-25 to +85	°C
Storage temperature	T_{STG}	-40 to +100	°C
Soldering temperature*	T_{SOL}	260	°C

NOTE: *For MAX. 5 seconds at the position of 2.15 mm from resin edge.

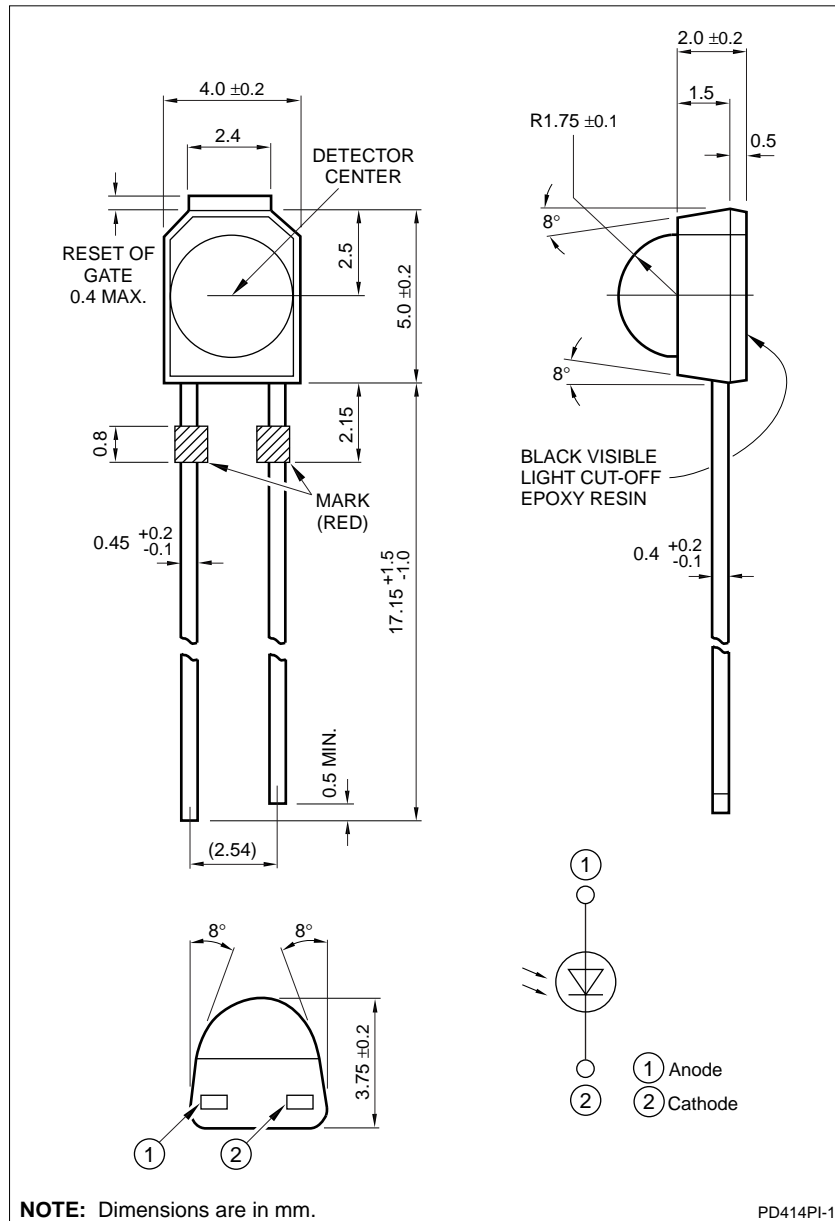
ELECTRO-OPTICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Shortcircuit current	I_{SC}	$E_V = 100 \text{ lx}^*$	1.3	2.1	3.1	μA
Dark current	I_d	$V_R = 10 \text{ V}, E_e = 0$		0.05	20	nA
Forward voltage	V_F	$I_F = 1 \text{ mA}$			1.0	V
Terminal capacitance	C_t	$V_R = 5 \text{ V}, f = 1 \text{ MHz}$		5.1		pF
Peak sensitivity wavelength	λ_p			960		nm
Cut-off frequency	f_c	$V_R = 5 \text{ V}, R_L = 50 \Omega$		40		MHz
Half intensity angle	$\Delta\theta$			± 30		degree

NOTE: * E_V : Illuminance by CIE standard light source A (tungsten lamp).

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