PRODUCT INFORMATION

SHARP®

IrDA Components Group

APPLICATIONS:

- AV equipment
- Personal computers
- Portable information terminal equipment

PD414PI High Speed PIN Photodiode for Optical Space Transmission

FEATURES

- High speed response (cut-off frequency: 40 MHz)
- Built-in visible light cut-off filter (peak sensitivity wavelength: λp = TYP. 960 nm)
- Halt intensity angle: $\Delta\theta$: ±30°
- Lead bending typing compatible

ABSOLUTE MAXIMUM RATINGS

T_A = 25°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

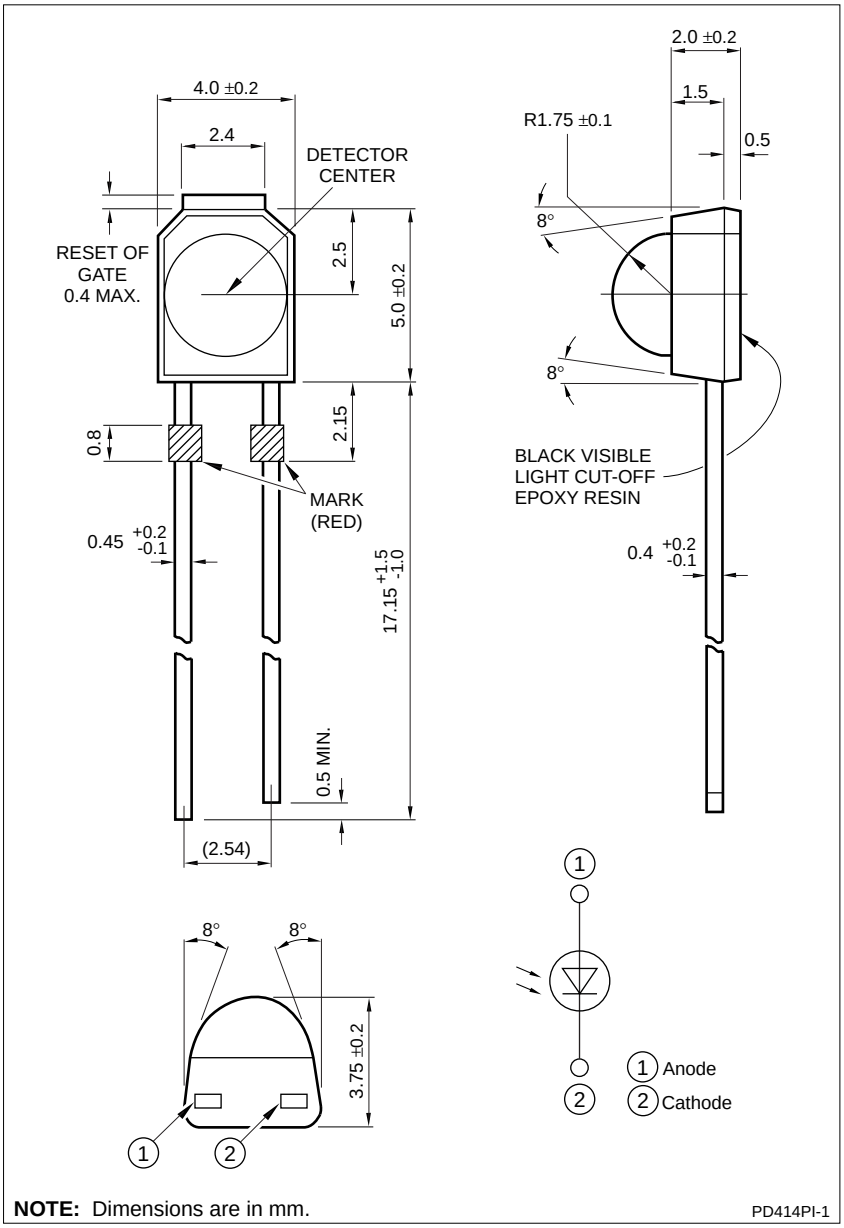
T_A = 25°C

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Shortcircuit current	I_{SC}	E_V = 100 1x*	1.3	2.1	3.1	µA
Dark current	Id	V_R = 10 V, Ee = 0		0.05	20	nA
Forward voltage	V_F	I_F = 1 mA			1.0	V
Terminal capacitance	Ct	V_R = 5 V, f = 1 MHz		5.1		pF
Peak sensitivity wavelength	λp			960		nm
Cut-off frequency	f_C	V_R = 5 V, R_L = 50 Ω		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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OUTLINE DIMENSIONS



NOTE: Dimensions are in mm.

PD414PI-1

IrDA is a registered name of the InfraRed Data Association.

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