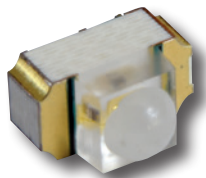


# SMD IR-DIODE IRP3016L24-B2 – 940nm / $\pm 6^\circ$ VIEWING ANGLE



The **IRP3016L24-B2** is a GaAs infrared LED in a small SMD package with tight viewing angle of  $\pm 6^\circ$ . The device has a peak wavelength of 940nm LED spectrally matched with phototransistor or photodiode.

## FEATURES

- » Small side view package  $3.0 \times 2.34 \times 1.6 \text{ mm}^3$
- » Viewing Angle =  $\pm 6^\circ$
- » High reliability
- » Good spectral matching to Si photo detector
- » RoHS compliance

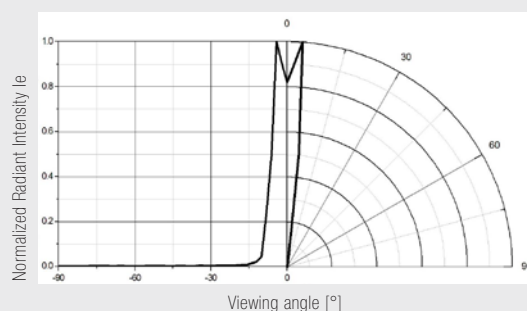
## APPLICATIONS

- » Infrared sensor
- » Infrared Touch Panel applications

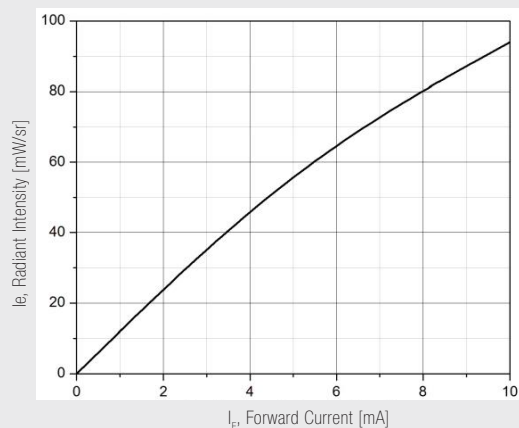
## ABSOLUTE MAXIMUM RATINGS

PARAMETER	RATING
Continuous forward current $I_F$ [mA]	10
Peak forward current $I_{FP}$ [A] (pulse $\leq 100\mu\text{s}$ , duty $\leq 1\%$ )	30
Reverse voltage $V_R$ [V]	5
Operating temperature $T_{OPR}$ [ $^\circ\text{C}$ ]	-40 ... +85
Storage temperature $T_{STG}$ [ $^\circ\text{C}$ ]	-40 ... +100
Thermal resistance (junction-ambient) $R_{th(j-a)}$ [ $^\circ\text{C}/\text{W}$ ]	550
Power dissipation $P_D$ [mW]	30

## ANGULAR DISPLACEMENT



## RADIANT INTENSITY VS. FORWARD CURRENT



## ELECTRO-OPTICAL SPECIFICATIONS

PARAMETER	RATING		
	min.	typ.	max.
Radiant intensity @ $I_F=5\text{mA}$ $I_e$ [mW/sr]	25	60	-
Radiant intensity @ $I_F=10\text{mA}$ $I_e$ [mW/sr]	-	94	-
Peak wavelength @ $I_F=5\text{mA}$ $\lambda_p$ [nm]	-	940	-
Spectral bandwidth @ $I_F=5\text{mA}$ $\Delta\lambda$ [nm]	-	9	-
Angle of half intensity @ $I_F=5\text{mA}$ $\theta_{1/2}$ [deg]	-	$\pm 6$	-
Forward voltage @ $I_F=5\text{mA}$ $V_F$ [V]	1.70	2.06	2.50
Forward voltage @ $I_F=10\text{mA}$ $V_F$ [V]	2.00	2.40	3.00
Reverse current @ $V_R=5\text{V}$ $I_R$ [ $\mu\text{A}$ ]	-	-	10

## FORWARD CURRENT VS. AMBIENT TEMPERATURE

