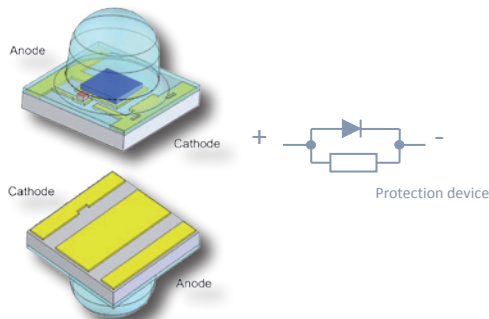


INFRARED LED HIRK3535030-G5 – HIGH POWER TYPE



The **HIRK3535030-G5** is a GaAlAs infrared LED in a miniature SMD package with ceramic substrate. The device has a peak wavelength of 850 nm LED spectrally matched with phototransistor or photodiode with or without daylight filter.

FEATURES

- » High efficiency
- » Viewing angle: $\pm 32.5^\circ$
- » Thermal resistance (junction to lead) 20°C/W
- » High reliability
- » Good spectral matching to Si photo detector
- » Miniature SMD package $3.45\text{ mm} \times 3.45\text{ mm} \times 3.0\text{ mm}$
- » RoHS compliant

APPLICATIONS

- » Infrared sensor

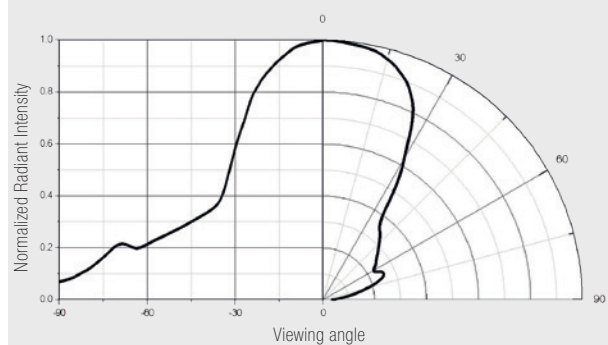
ABSOLUTE MAXIMUM RATING

PARAMETER	VALUE
Continuous forward current I_F [mA]	1000
Reverse voltage V_R [V]	5
Operating temperature T_{OPR} [$^\circ\text{C}$]	-40 ... +85
Storage temperature T_{STG} [$^\circ\text{C}$]	-40 ... +100
Soldering temperature T_{SOL} (soldering time 5s) [$^\circ\text{C}$]	260
Therm. resistance (junction to lead) R_{inj-l} [$^\circ\text{C/W}$]	20
Power dissipation P_D [W]	3

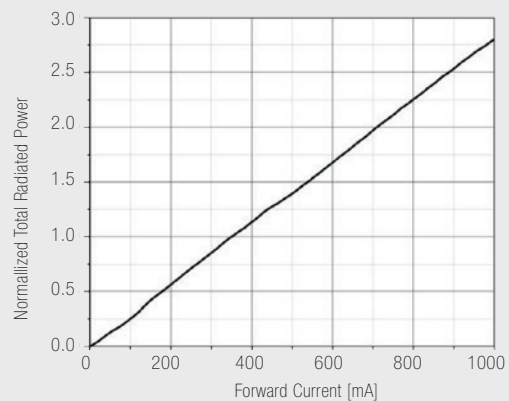
ELECTRO-OPTICAL SPECIFICATIONS

PARAMETER	VALUE		
	min.	typ.	max.
Total radiated power @ $I_F=350\text{mA}$ P_O [mW]	-	250	-
Total radiated power @ $I_F=1000\text{mA}$ P_O [mW]	560	680	800
Peak wavelength @ $I_F=350\text{mA}$ λ_p [nm]	840	850	870
Spectral bandwidth @ $I_F=350\text{mA}$ $\Delta\lambda$ [nm]	-	30	-
Angle of Half Intensity @ $I_F=350\text{mA}$ $\theta_{1/2}$ [deg]	-	± 32.5	-
Forward voltage @ $I_F=350\text{mA}$ V_F [V]	1.45	1.7	2.2
Forward voltage @ $I_F=1000\text{mA}$ V_F [V]	1.75	2.3	3.0
Reverse current @ $V_R=5\text{V}$ I_R [μA]	-	-	10

ANGULAR DISPLACEMENT



TOTAL RADIATED POWER VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

