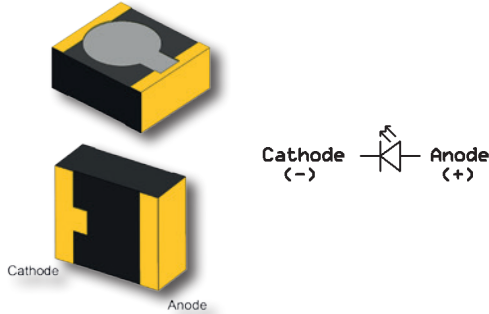


INFRARED LED HIRM2219T09-E0 – MID POWER TYPE



The **HIRM2219T09-E0** is a GaAlAs infrared LED in a small SMD reflector package. The device has a peak wavelength of 850 nm LED spectrally matched with phototransistor or photodiode with or without daylight filter.

FEATURES

- » Small double-end SMD package 2.2×1.95×0.9 mm³
- » Viewing angle: ±20 °
- » High radiant intensity
- » High reliability
- » Good spectral matching to Si photo detector
- » RoHS compliant

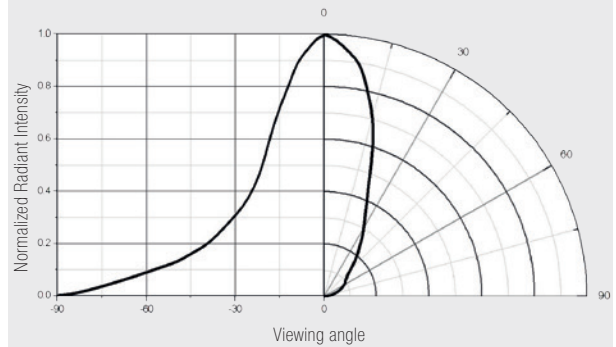
APPLICATIONS

- » Infrared sensor

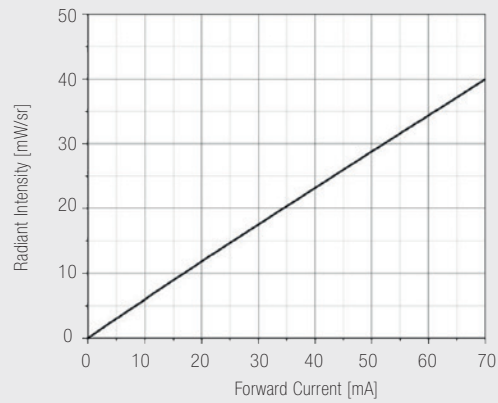
ABSOLUTE MAXIMUM RATING

PARAMETER	VALUE
Continuous forward current I_F [mA]	70
Peak forward current I_{FP} [A] (pulse≤100μs, duty≤1%)	0.7
Reverse voltage V_R [V]	5
Operating temperature T_{OPR} [°C]	-40 ... +85
Storage temperature T_{STG} [°C]	-40 ... +100
Thermal resistance (junction to ambient) $R_{th(j-a)}$ [°C/W]	370
Power dissipation P_D [mW]	140

ANGULAR DISPLACEMENT



RADIANT INTENSITY VS. FORWARD CURRENT



ELECTRO-OPTICAL SPECIFICATIONS

PARAMETER	VALUE		
	min.	typ.	max.
Radiant Intensity @ $I_F=70mA$ I_b [mW/sr]	-	40	-
Radiant Intensity @ $I_F=100mA$ I_b [mW/sr] $t_p=20ms$	35	55	-
Peak wavelength @ $I_F=20mA$ λ_p [nm]	-	850	-
Spectral band width @ $I_F=20mA$ $\Delta\lambda$ [nm]	-	40	-
Angle of Half Intensity @ $I_F=20mA$ $\theta_{1/2}$ [deg]	-	±20	-
Forward voltage @ $I_F=20mA$ V_F [V]	1.25	1.45	1.7
Forward voltage @ $I_F=70mA$ V_F [V]	1.40	1.60	2.0
Reverse current @ $V_R=5V$ I_F [μA]	-	-	10

FORWARD CURRENT VS. AMBIENT TEMPERATURE

