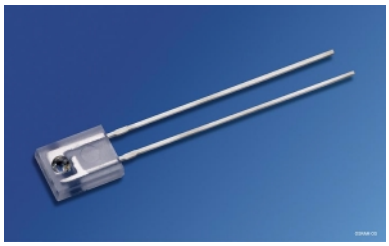
GaAs-Infrarot-Sendediode
GaAs Infrared Emitter

IRL 80 A



Wesentliche Merkmale

- GaAs-Lumineszenzdiode im Infrarotbereich
- Rosa Miniaturkunststoffgehäuse, seitliche Abstrahlung
- Preiswertes Kunststoffgehäuse
- Lange Lebensdauer (Langzeitstabilität)
- Weiter Öffnungskegel (± 30°)
- Passend zu Fototransistor LPT 80 A

Features

- GaAs infrared emitting diode
- Pink plastic package with lateral emission
- Low cost plastic package
- Long term stability
- Wide beam (± 30°)
- Matches phototransistor LPT 80 A

Anwendungen

- Fertigungs- und Kontrollanwendungen der Industrie, die eine Unterbrechung des Lichtstrahls erfordern
- Lichtschranken

Applications

- For a variety of manufacturing and monitoring applications which require beam interruption
- Light barriers

Typ Type	Bestellnummer Ordering Code
IRL 80 A	Q68000-A7851

Grenzwerte (T_A = 25 °C
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Wert** **Value**	**Einheit** **Unit**
Betriebs- und Lagertemperatur Operating and storage temperature range	T_{op}; T_{stg}	– 40 … + 100	°C
Löttemperatur Lötstelle ≥ 0.15 cm vom Gehäuse, Lötzeit t = 5 s Soldering temperature, ≥ 0.15 mm distance from case bottom, soldering time t = 5 s	T_S	240	°C
Sperrspannung Reverse voltage	V_R	3	V
Durchlaßstrom Forward current	I_F	60	mA
Verlustleistung Power dissipation	P_{tot}	100	mW
Verringerung der Verlustleistung, T_A > 25 °C Derate above, T_A > 25 °C	–	1.33	mW/°C
Wärmewiderstand Thermal resistance	R_{thJA}	750	K/W

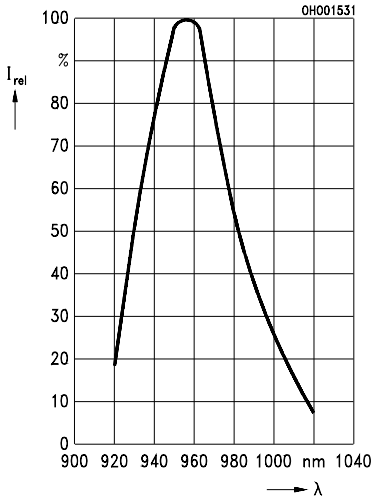
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Wert** **Value**	**Einheit** **Unit**
Wellenlänge der Strahlung bei I_{max} Wavelength of peak emission	λ_{peak}	950	nm
Spektrale Bandbreite bei 50% von I_{max} Spectral bandwidth at 50% of I_{max}	$\Delta\lambda$	± 20	nm
Abstrahlwinkel Half angle	φ	± 30	Grad deg.
Durchlaßspannung, I_F = 20 mA Forward voltage	V_F	≤ 1.5	V
Strahlstärke[1)], I_F = 20 mA Radiant intensity	I_e	≥ 0.4	mW/sr

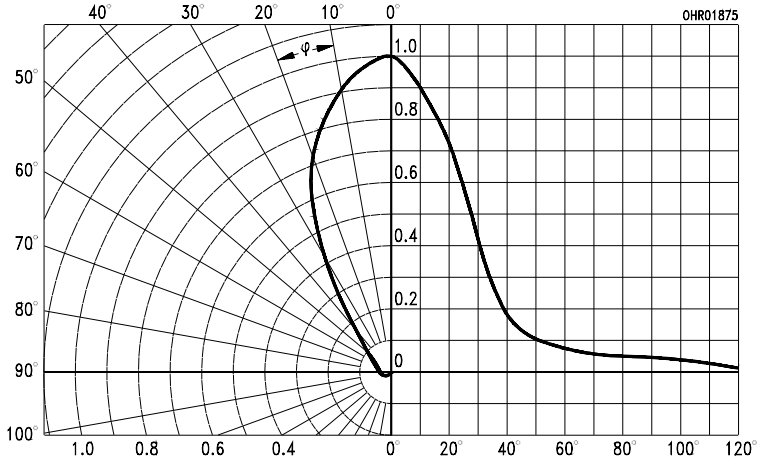
[1)] Ein Silizium-Empfänger mit 1 cm² strahlungsempfindlicher Fläche wird nach der mechanischen Achse ausgerichtet. Es wird eine Lochblende verwendet.

[1)] A 1 cm² silicon detector is aligned with the mechanical axis. An aperture is used.

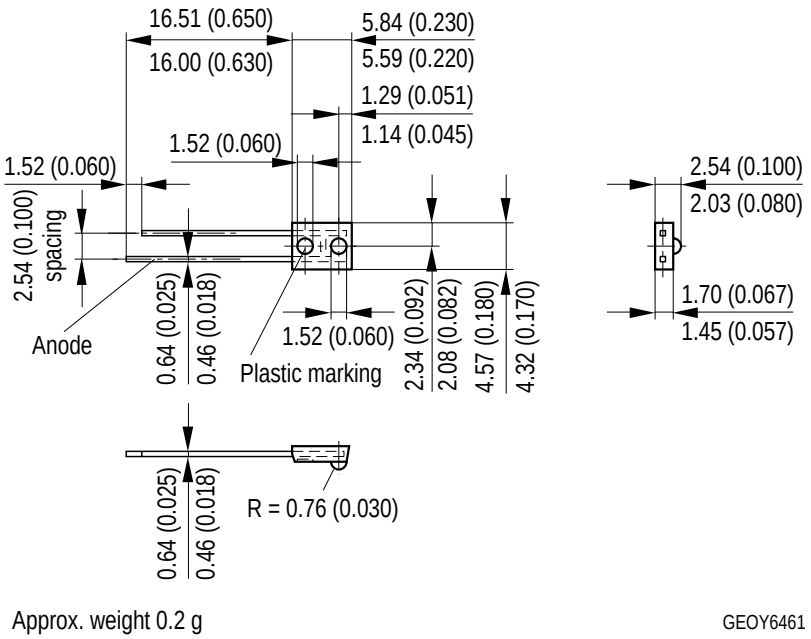
Relative Spectral Emission
$S_{rel} = f(\lambda)$



Directional Characteristics
$I_{rel} = f(\varphi)$



Maßzeichnung
Package Outlines



Maße werden wie folgt angegeben: mm (inch) / Dimensions are specified as follows: mm (inch).

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Attention please!
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Packing
Please use the recycling operators known to you. We can also help you – get in touch with your nearest sales office. By agreement we will take packing material back, if it is sorted. You must bear the costs of transport. For packing material that is returned to us unsorted or which we are not obliged to accept, we shall have to invoice you for any costs incurred.
Components used in life-support devices or systems must be expressly authorized for such purpose! Critical components [1] , may only be used in life-support devices or systems [2] with the express written approval of OSRAM OS.
[1] A critical component is a component usedin a life-support device or system whose failure can reasonably be expected to cause the failure of that life-support device or system, or to affect its safety or effectiveness of that device or system.
[2] Life support devices or systems are intended (a) to be implanted in the human body, or (b) to support and/or maintain and sustain human life. If they fail, it is reasonable to assume that the health of the user may be endangered.