NPN-Si-Fototransistor mit V_λ Charakteristik
Silicon NPN Phototransistor with V_λ Characteristics
Lead (Pb) Free Product - RoHS Compliant

SFH 3310

Wesentliche Merkmale

- Speziell geeignet für Anwendungen im Bereich von 350 nm bis 970 nm
- Angepasst an die Augenempfindlichkeit (V_λ)

Features

- Especially suitable for applications from 350 nm to 970 nm
- Adapted to human eye sensitivity (V_λ)

Anwendungen

- Umgebungslicht-Detektor
- Beleuchtungsmesser
- Dimmungssensor für Hintergrundbeleuchtung
- „Messen/Steuern/Regeln“

Applications

- Ambient light detector
- Exposure meter for daylight and artificial light
- Sensor for Backlight-Dimming
- For control and drive circuits

Typ **Type**	**Bestellnummer** **Ordering Code**	**Fotostrom** , E_e= 10µW/cm^2, λ = 560nm, V_{CE} = 5 V **Photocurrent** Ipce (µA)
SFH 3310	Q65110A5343	2.5...8.0

Opto Semiconductors OSRAM

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
Kollektor-Emitterspannung Collector-emitter voltage	V_{CE}	5.5	V
Kollektorstrom Collector current	I_C	20	mA
Emitter-Kollektorspannung Emitter-collector voltage	V_{EC}	0.5	V

Kennwerte (T_A = 25 °C)
Characteristics

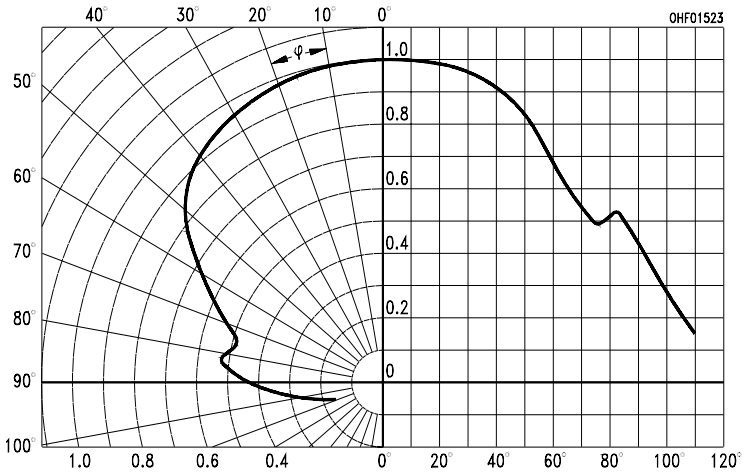
Bezeichnung Parameter	Symbol Symbol	Wert Value	Einheit Unit
Wellenlänge der max. Fotoempfindlichkeit Wavelength of max. sensitivity	λ_{Smax}	570	nm
Spektraler Bereich der Fotoempfindlichkeit S = 10% von S_{max} Spectral range of sensitivity S = 10% of S_{max}	λ	350 … 970	nm
Bestrahlungsempfindliche Fläche Radiant sensitive area	A	0.29	mm^2
Abmessung der Chipfläche Dimensions of chip area	$L \times B$ $L \times W$	0.75 × 0.75	mm × mm
Halbwinkel Half angle	φ	± 75	Grad. deg.
Kapazität, V_{CE} = 0 V, f = 1 MHz, E = 0 Capacitance	C_{CE}	16	pF
Dunkelstrom Dark current V_R = 5 V	I_{CEO}	3 (< 50)	nA

Bezeichnung Parameter	Symbol Symbol	Wert Value		Einheit Unit
		-2	-3	
Fotostrom Photocurrent E_e= 10µW/cm², λ = 560nm, V_{CE} = 5 V E_v = 1000lx, Normlicht/Standard light A	I_{PCE}	2.5…5.0 290	4.0…8.0 460	µA µA
Kollektor-Emitter-Sättigungsspannung Collector-emitter saturation voltage $I_C = I_{PCEmin}$ [1] × 0.3, E_e= 10µW/cm², λ = 560nm	V_{CEsat}	100	100	mV

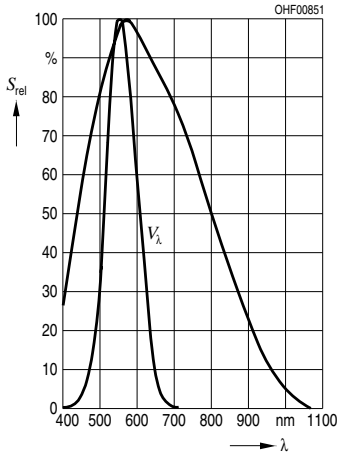
[1] I_{PCEmin} ist der minimale Fotostrom der jeweiligen Gruppe

[1] I_{PCEmin} is the min. photocurrent of the specified group

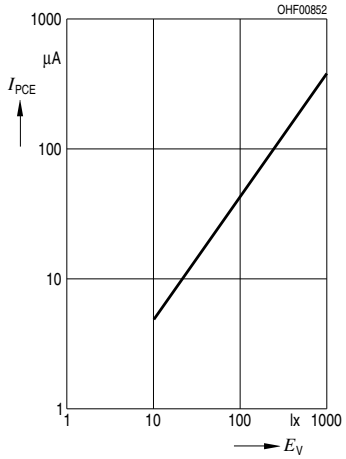
Directional Characteristics $S_{rel} = f(\varphi)$



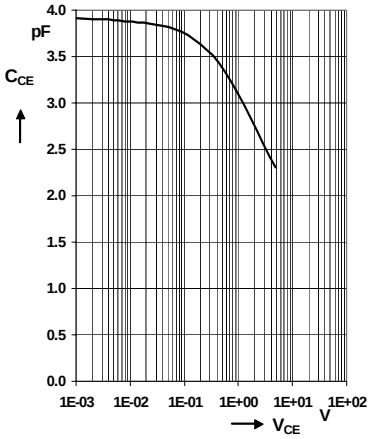
Relative Spectral Sensitivity
$S_{rel} = f(\lambda)$



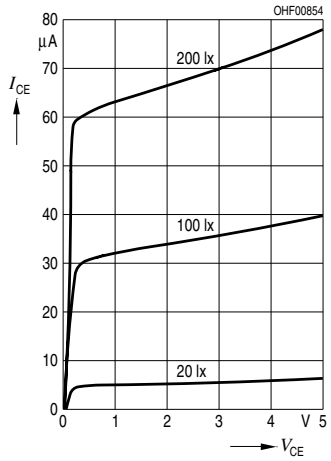
Photocurrent
$I_{PCE} = f(E_V)$, V_{CE} = 5 V



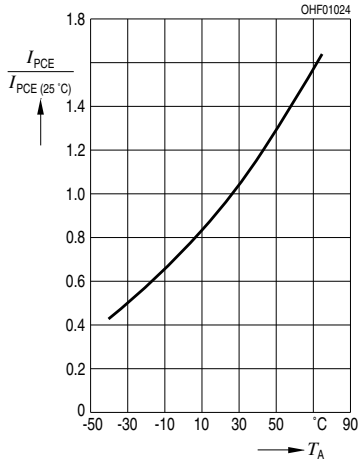
Collector-Emitter Capacitance
$C_{CE} = f(V_{CE})$



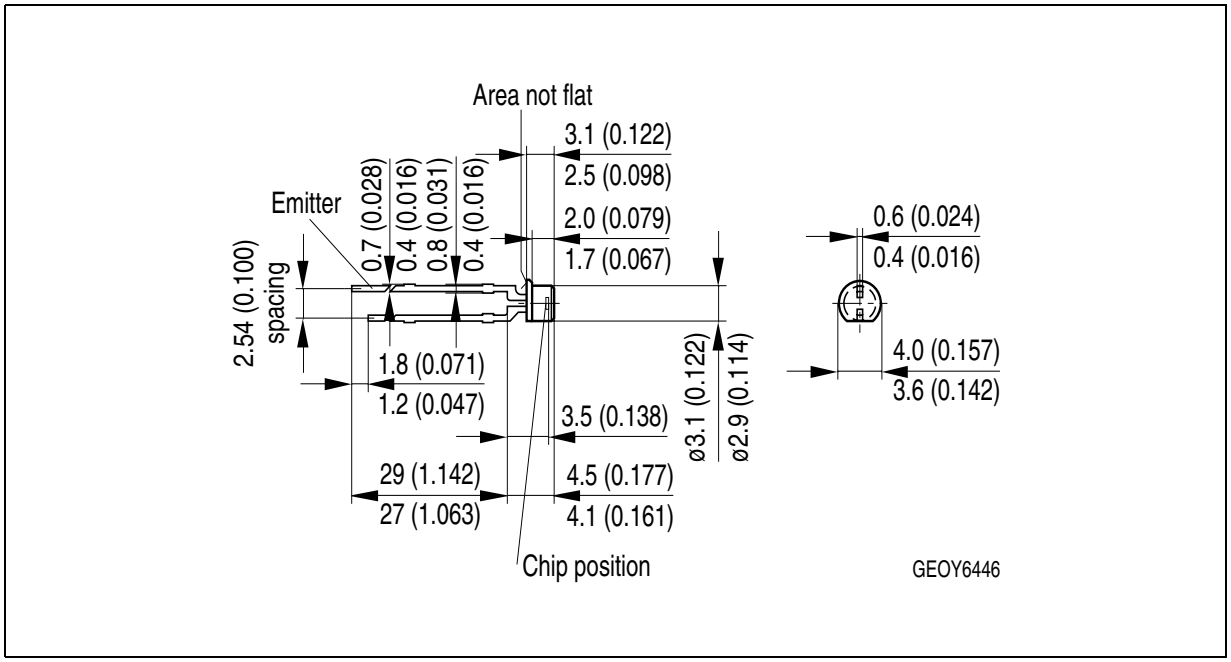
Collector-Emitter Current
$I_{CE} = f(V_{CE}; E_V)$



Photocurrent $I_{PCE}/I_{PCE(25\,°C)} = f(T_A)$
E_v = 1000 lx, V_{CE} = 1 V … 5 V



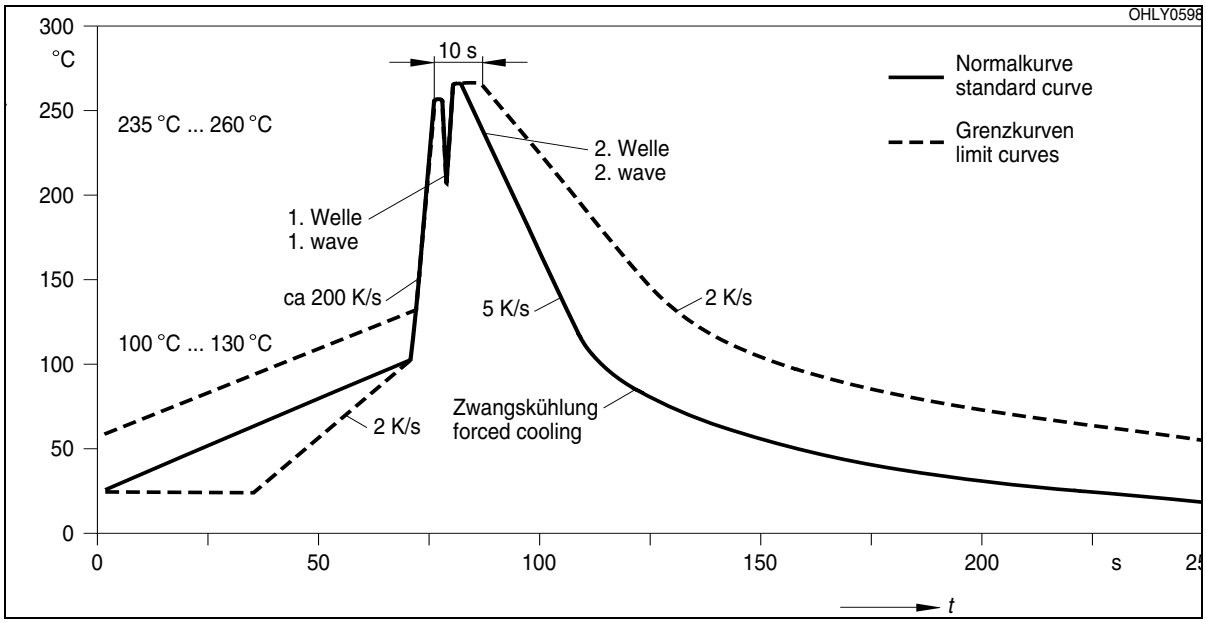
Maßzeichnung
Package Outlines



Maße in mm (inch) / Dimensions in mm (inch).

Lötbedingungen
Soldering Conditions

Wellenlöten (TTW) (nach CECC 00802)
TTW Soldering (acc. to CECC 00802)



Published by
OSRAM Opto Semiconductors GmbH
Wernerwerkstrasse 2, D-93049 Regensburg
www.osram-os.com

EU RoHS and China RoHS compliant product

此产品符合欧盟 RoHS 指令的要求；

按照中国的相关法规和标准，不含有毒有害物质或元素。

The information describes the type of component and shall not be considered as assured characteristics.
Terms of delivery and rights to change design reserved. Due to technical requirements components may contain dangerous substances. For information on the types in question please contact our Sales Organization.

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.