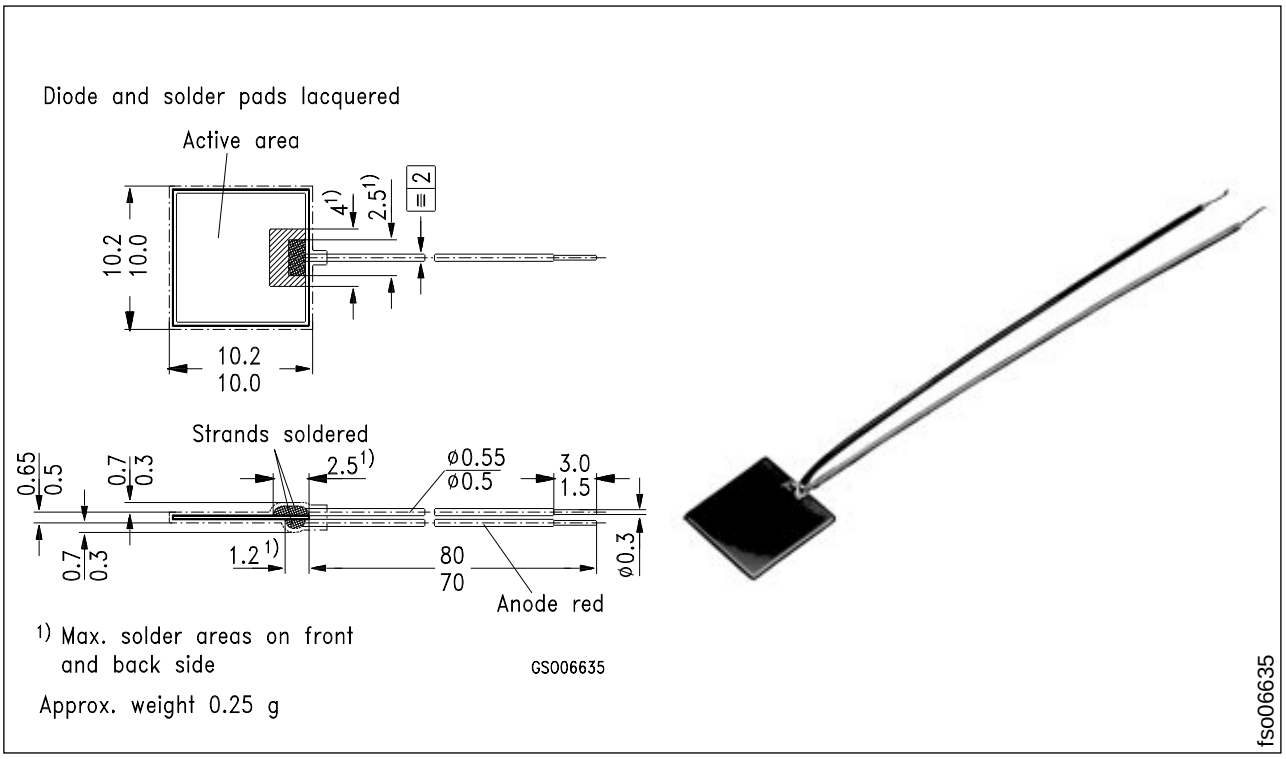
SIEMENS

Silizium-Fotoelement
Silicon Photovoltaic Cell

BPY 63 P



Maβe in mm, wenn nicht anders angegeben/Dimensions in mm, unless otherwise specified.

Wesentliche Merkmale

- Speziell geeignet für Anwendungen im Bereich von 400 nm bis 1100 nm
- Kathode = Chipunterseite
- Mit feuchtigkeitsabweisender Schutzschicht überzogen
- Weiter Temperaturbereich

Features

- Especially suitable for applications from 400 nm to 1100 nm
- Cathode = back contact
- Coated with a humidity-proof protective layer
- Wide temperature range

Anwendungen

- für Meβ-, Steuer- und Regelzwecke
- zur Abtastung von Lichtimpulsen
- quantitative Lichtmessung im sichtbaren Licht- und nahen Infrarotbereich

Applications

- For control and drive circuits
- Light pulse scanning
- Quantitative light measurements in the visible light and near infrared range

Typ Type	Bestellnummer Ordering Code
BPY 63 P	Q60215-Y63-S1

Grenzwerte
Maximum Ratings

Bezeichnung **Description**	**Symbol** **Symbol**	**Wert** **Value**	**Einheit** **Unit**
Betriebs- und Lagertemperatur Operating and storage temperature range	T_{op}; T_{stg}	– 55 ... + 100	℃
Sperrspannung Reverse voltage	V_R	1	V

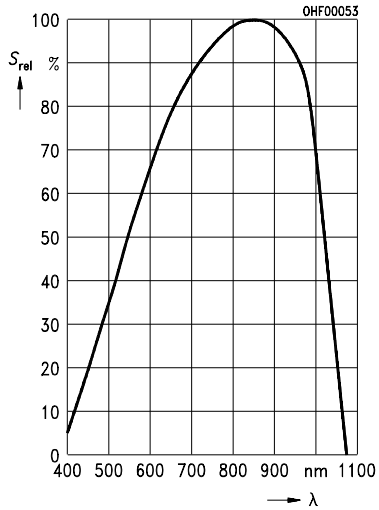
Kennwerte (T_A = 25 °C, Normlicht A, T = 2856 K)
Characteristics (T_A = 25 °C, standard light A, T = 2856 K)

Bezeichnung **Description**	**Symbol** **Symbol**	**Wert** **Value**	**Einheit** **Unit**
Fotoempfindlichkeit, V_R = 0 V Spectral sensitivity	S	0.65 (≥ 0.45)	µA/lx
Wellenlänge der max. Fotoempfindlichkeit Wavelength of max. sensitivity	$\lambda_{S\ max}$	830	nm
Spektraler Bereich der Fotoempfindlichkeit S = 10 % von S_{max} Spectral range of sensitivity S = 10 % of S_{max}	λ	400 ... 1100	nm
Bestrahlungsempfindliche Fläche Radiant sensitive area	A	94	mm²
Abmessungen der bestrahlungsempfindlichen Fläche Dimensions of radiant sensitive area	$L \times B$ $L \times W$	9.69×9.69	mm
Halbwinkel Half angle	φ	± 60	Grad deg.
Dunkelstrom, V_R = 1 V; E = 0 Dark current	I_R	10 (≤ 60)	µA
Spektrale Fotoempfindlichkeit, λ = 850 nm Spectral sensitivity	S_λ	0.5	A/W
Quantenausbeute, λ = 850 nm Quantum yield	η	0.72	Electrons Photon
Leerlaufspannung, E_v = 1000 lx Open-circuit voltage	V_O	430 (≥ 280)	mV
Kurzschluβstrom, E_v = 1000 lx Short-circuit current	I_{SC}	0.65 (≥ 0.45)	mA

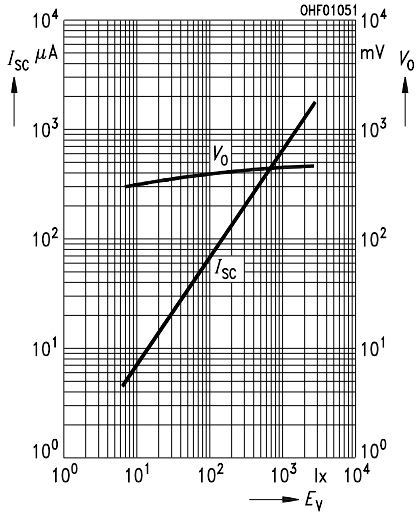
Kennwerte (T_A = 25 °C, Normlicht A, T = 2856 K)
Characteristics (T_A = 25 °C, standard light A, T = 2856 K)

Bezeichnung **Description**	**Symbol** **Symbol**	**Wert** **Value**	**Einheit** **Unit**
Anstiegs und Abfallzeit des Fotostromes Rise and fall time of the photocurrent R_L= 1 kΩ; V_R = 1 V; λ = 850 nm; I_p = 50 µA	t_r, t_f	11	µs
Temperaturkoeffizient von V_O Temperature coefficient of V_O	TC_V	– 2.6	mV/K
Temperaturkoeffizient von I_{SC} Temperature coefficient of I_{SC}	TC_I	0.2	%/K
Kapazität, V_R = 1 V, f = 1 MHz, E_v = 0 lx Capacitance	C_0	8	nF

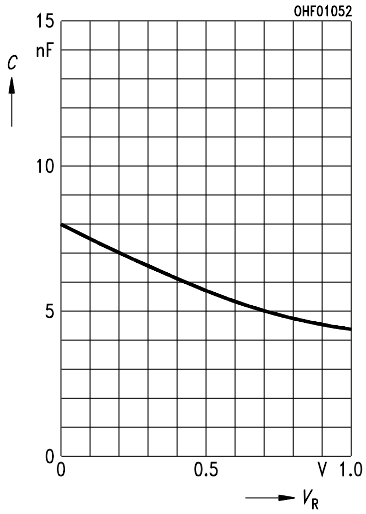
Relative spectral sensitivity
$S_{rel} = f\ (\lambda)$



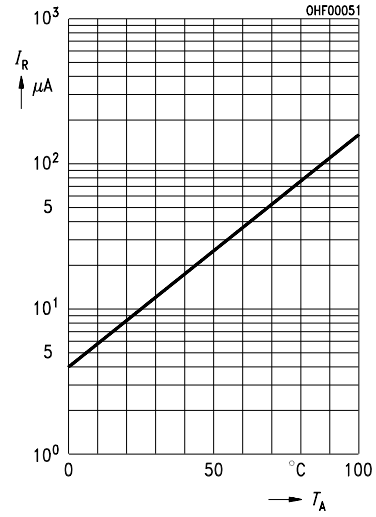
Open-circuit voltage $V_O = f\ (E_V)$
Short-circuit current $I_{SC} = f\ (E_V)$



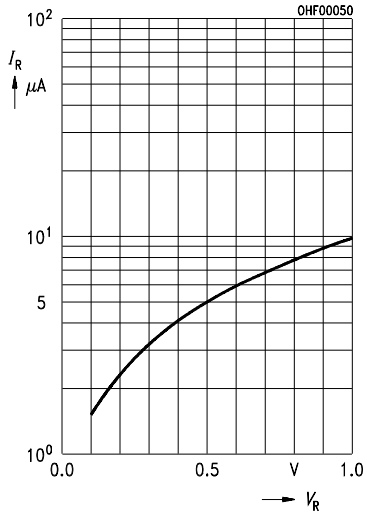
Capacitance
$C = f\ (V_R)$, f = 1 MHz, E = 0



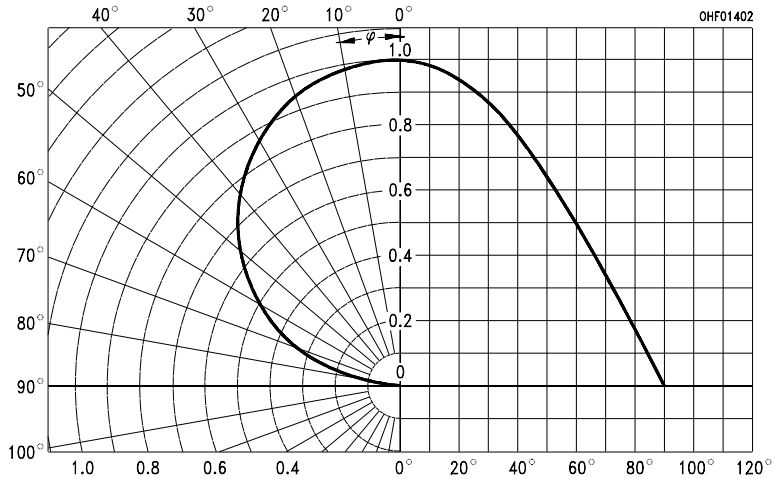
Dark current
$I_R = f\ (T_A)$, V_R = 1 V, E = 0



Dark current
$I_R = f\ (V_R)$, E = 0



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



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