

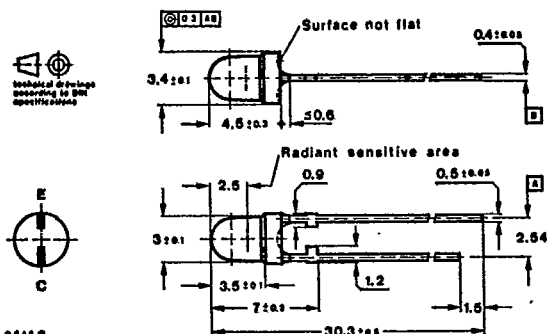
Silicon NPN Epitaxial Planar Phototransistor

Applications: Detector in electronic control and drive circuits

Features:

- Plastic case $\varnothing$ 3 mm (T-1)
- Suitable for visible and near infrared radiation
- Compatible with IR diode TSUS 3400
- High sensitivity
- Wide angle of half sensitivity
- Axial terminals

Dimensions in mm



Angle of half sensitivity
 $\pm \varphi = 35^\circ$
 Special case
 Clear plastic
 Weight max. 0.35 g

Absolute maximum ratings

Collector-emitter voltage	V_{CEO}	32	V
Emitter-collector voltage	V_{ECO}	5	V
Collector current	I_C	50	mA
Peak collector current			
$\frac{t_p}{T} = 0.5, t_p \leq 10 \text{ ms}$	I_{CM}	100	mA
Total power dissipation			
$T_{amb} \leq 55^\circ \text{C}$	P_{tot}	100	mW
Junction temperature	T_j	100	$^\circ \text{C}$
Storage temperature range	T_{stg}	-25...+100	$^\circ \text{C}$
Soldering temperature			
$t \leq 3 \text{ s}$	$T_{sd}^{1)}$	245	$^\circ \text{C}$

¹⁾ Distance from the touching border $\geq 1.5 \text{ mm}$ with intermediate PC-board

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Thermal resistance

Junction ambient

R_{thJA}

Min.

Typ.

Max.

450 K/W

Optical and electrical characteristics

$T_{amb} = 25^\circ C$

Collector dark current

$V_{CE} = 20 V, E = 0$

$I_{CEO}^{*)}$

10

200

nA

Collector light current

$V_{CE} = 5 V, E_A = 1 \text{ klx}^{1)}$

$V_{CE} = 5 V, E_s = 1 \text{ mW/cm}^2, \lambda_p = 950 \text{ nm}$

$I_{CA}^{*)}$

0.5

3

mA

mA

Peak wavelength sensitivity

λ_p

780

nm

Range of spectral bandwidth (50%)

$\lambda_{0.5}$

520...950

nm

Collector-emitter breakdown voltage

$I_C = 1 \text{ mA}$

$V_{(BR)CEO}^{*)}$

32

V

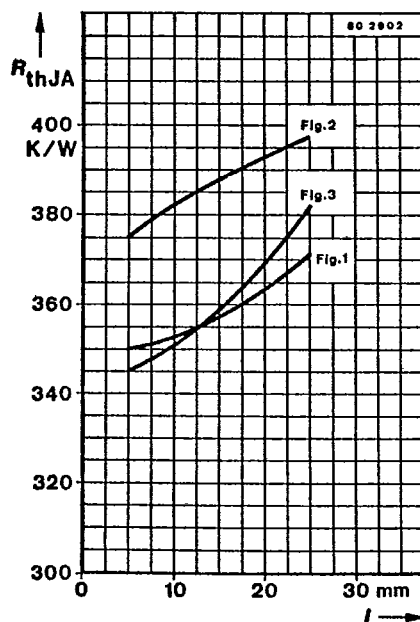
Collector-emitter saturation voltage

$I_C = 0.1 \text{ mA}, E_s = 1 \text{ mW/cm}^2, \lambda_p = 950 \text{ nm}$

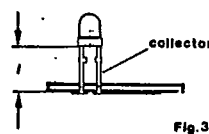
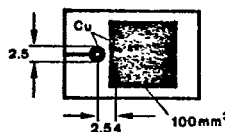
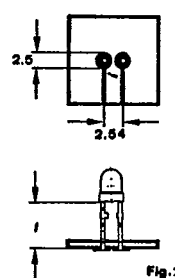
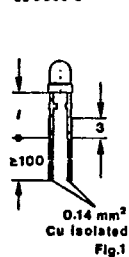
$V_{CEsat}^{*)}$

0.3

V



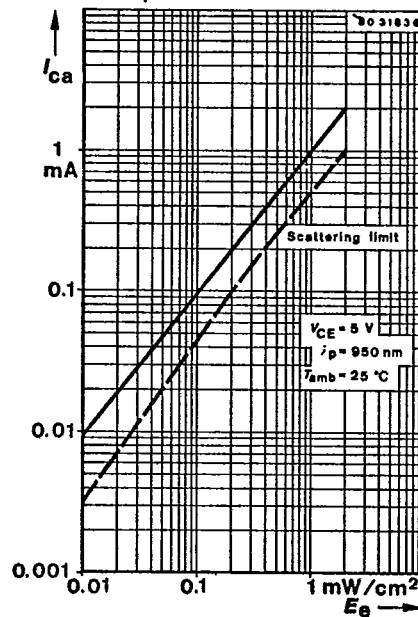
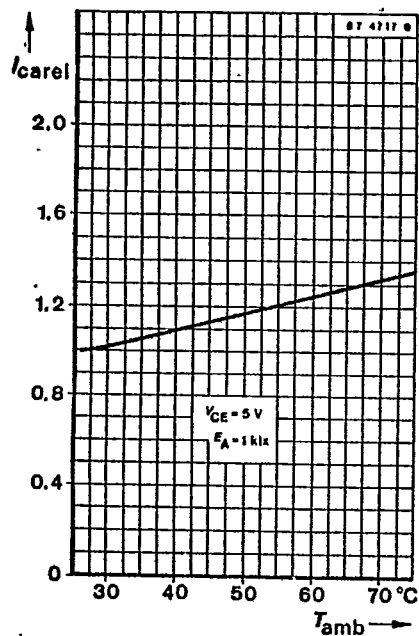
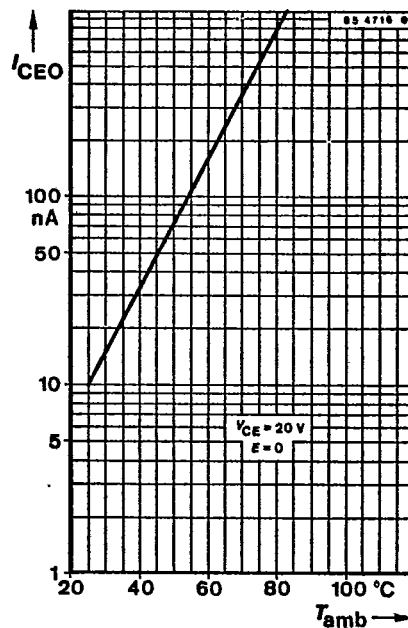
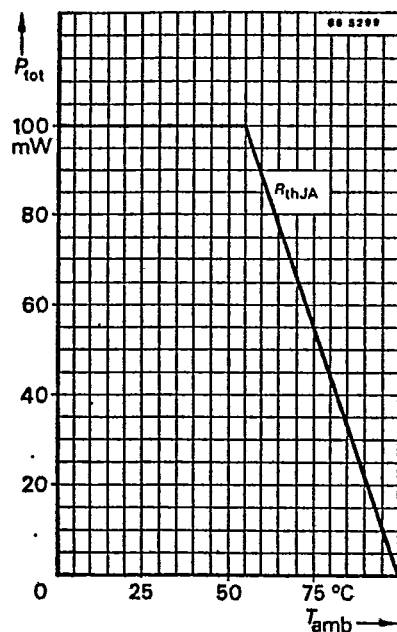
82 3230 0



^{*)} AQL = 0.65 %

¹⁾ Standard illuminant A (DIN 5033/IEC 306-1)

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