



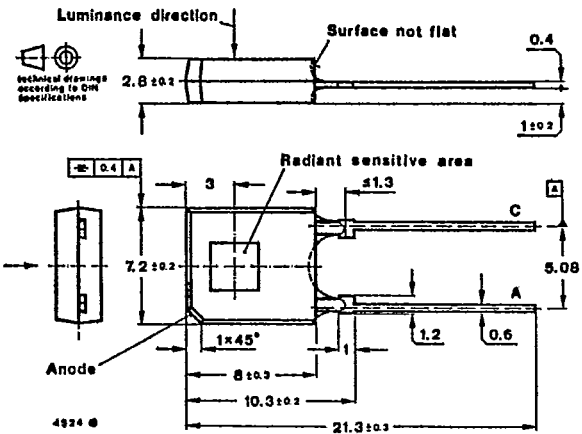
Silicon Photo PIN Diode

Applications: High speed photo detector

Features:

- Fast response times
- Small junction capacitance
- High photo sensitivity
- Large radiant sensitive area
A = 7.5 mm²
- Angle of half sensitivity ±φ = 65°
- Suitable for near infrared radiation
- Plastic case with IR filter
- Anode terminal marking

Dimensions in mm



Radiant sensitive area A = 7.5 mm²

Plastic case
Weight max. 0.4 g

Absolute maximum ratings

Reverse voltage	V_R	32	V
Power dissipation $T_{amb} \leq 25^\circ C$	P_v	150	mW
Junction temperature	T_j	80	°C
Storage temperature range	T_{stg}	-30...+80	°C
Soldering temperature $t \leq 5$ s	$T_{sd}^{1)}$	260	°C

¹⁾ Distance from the touching border ≥ 1.5 mm with intermediate PC-board

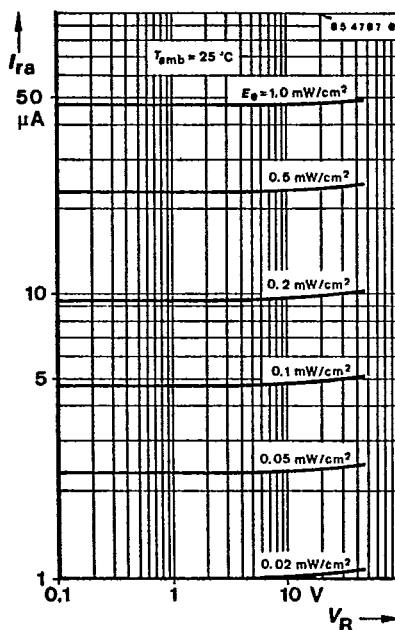
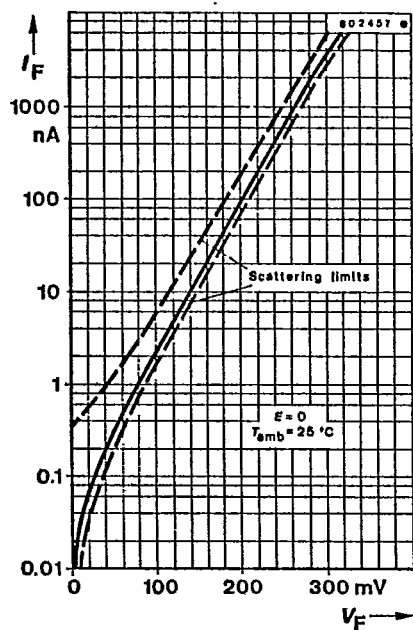
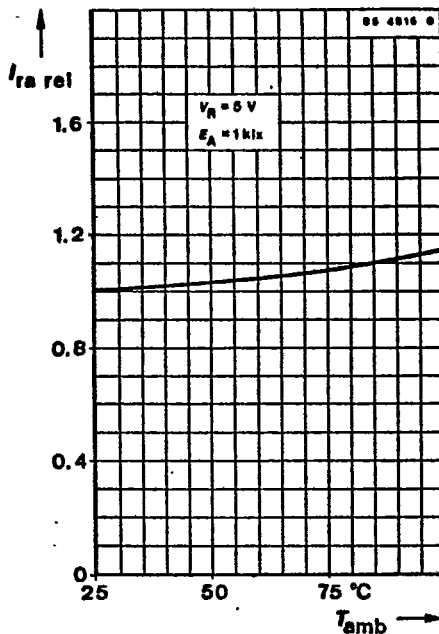
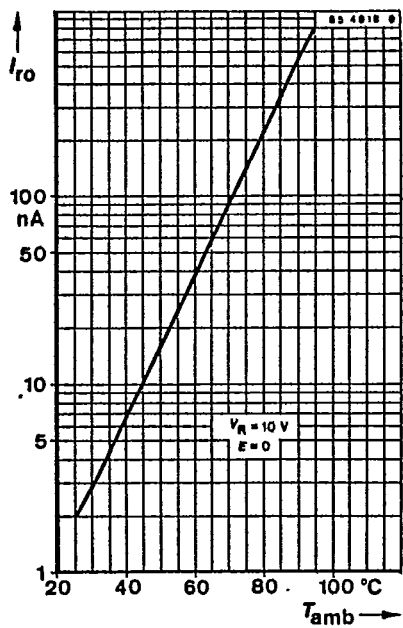
T1.2/353.0788 E

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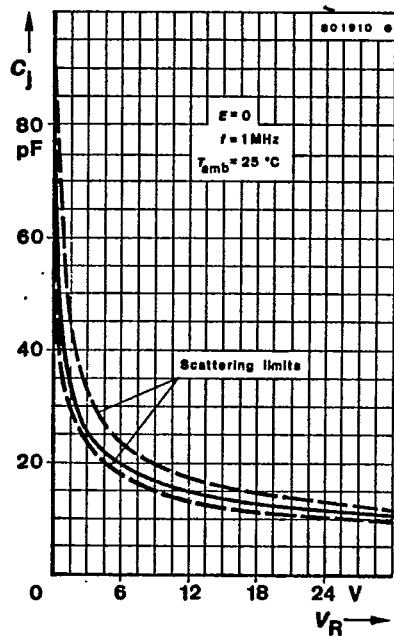
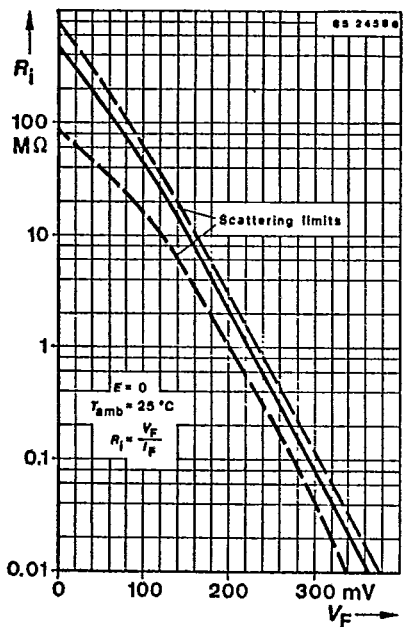
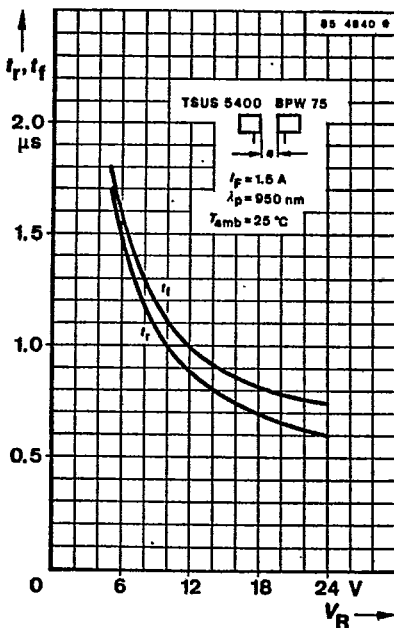
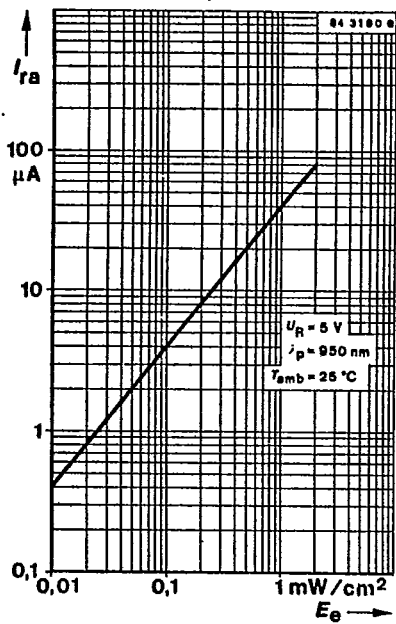
		Min.	Typ.	Max.	
Thermal resistance					
Junction ambient	R_{thJA}			350	K/W
Optical and electrical characteristics					
$T_{amb} = 25\text{ }^{\circ}\text{C}$					
Photovoltaic cell operation					
Open circuit voltage					
$E_s = 1\text{ mW/cm}^2, \lambda_p = 950\text{ nm}$	V_o		350		mV
Short circuit current					
$E_s = 1\text{ mW/cm}^2, \lambda_p = 950\text{ nm}, R_L = 100\text{ }\Omega$	I_k		38		μA
Junction capacitance					
$V_R = 0, f = 1\text{ MHz}, E = 0$	C_j		75		pF
Photodiode operation					
Breakdown voltage					
$I_R = 100\text{ }\mu\text{A}, E = 0$	$V_{(BR)}^{*)}$	32			V
Reverse dark current					
$V_R = 10\text{ V}, E = 0$	$I_{ro}^{*)}$		2	30	nA
Light reverse current					
$V_R = 5\text{ V}, E_s = 1\text{ mW/cm}^2, \lambda_p = 950\text{ nm}$	$I_{rs}^{*)}$	43	48		μA
Junction capacitance					
$V_R = 3\text{ V}, f = 1\text{ MHz}, E = 0$	C_j		25	40	pF
Noise equivalent power (NEP)					
$V_R = 10\text{ V}, \lambda_p = 950\text{ nm}$	P_n		10^{-14}		$\text{WHz}^{-1/2}$
Switching characteristics					
$V_R = 10\text{ V}, R_L = 1\text{ k}\Omega, \lambda_p = 820\text{ nm}$					
Turn-on time	t_{on}		200		ns
Turn-off time	t_{off}		200		ns
Photovoltaic cell and photodiode operation					
Peak wavelength sensitivity	λ_p		950		nm
Range of spectral bandwidth (50 %)	$\lambda_{0.5}$		820...1040		nm

*) AQL = 0.65 %

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