TEYD 5500

T-H-53

TELEFUNKEN electronic
Creative Technologies

Silicon Photo PIN Diode (N–Type)

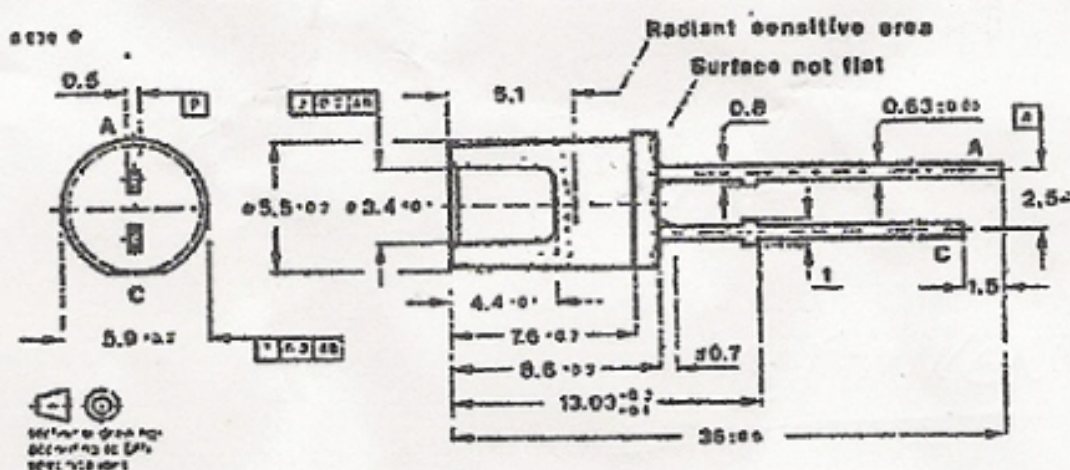in clear plastic package for plastic fiber connection

Applications: Signal receiver for:
- Low cost fiber links
- Large distance isolators
- Special interrupters

Features:

- Suitable for large range of wavelength
- High coupling efficiency for ⌀ 1 mm plastic fibers

- With special accessories usuable for three different diameters of plastic fiber
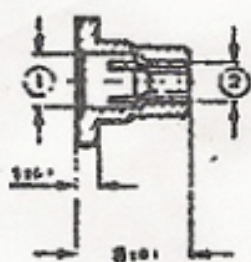- Compatible to TLY. 5200 series and TLYR 5500

Dimensions in mm

Radiant sensitive area
Surface not flat

Accessories:
Clips for coupling with plastic fiber

Type	Fiber diameter mm	Dimensions in mm for: ①	②
YC 10	1.0	1.1	0.8
YC 15	1.5	1.65	1.3
YC 20	2.0	2.2	1.7

Special case
Weight max. 0.4 g

·T1.2/1333.0686 E1

Absolute maximum ratings

Reverse voltage	V_R		32	V
Power dissipation $T_{amb} \leq 25\,°C$	P_V		210	mW
Junction temperature	T_j		100	°C
Storage temperature range	T_{stg}		−55 ... +100	°C
Soldering temperature $t \leq 5\,s$	T_{sd}		260	°C

Thermal resistance		Min.	Typ.	Max.	
Junction ambient	R_{thJA}			350	K/W

Optical and electrical characteristics
$T_{amb} = 25\,°C$

		Min.	Typ.	Max.	
Forward voltage $I_F = 50\,mA$	V_F		0.9	1.2	V
Breakdown voltage $I_R = 100\,\mu A, E = 0$	$V_{(BR)}$	32			V
Reverse dark current $V_R = 10\,V, E = 0$	I_{ro}		2	10	nA
Light reverse current $V_R = 5\,V, E_e = 1\,mW/cm^2$ $\lambda = 660\,nm$	I_{ra}	4.0	5.5		μA
$\lambda = 870\,nm$	I_{ra}		7		μA
Temperature coefficient	TKI_{ra}		< +0.2		%/K
Absolute spectral sensitivity $V_R = 5\,V, \lambda = 660\,nm$	$s(\lambda)$		0.45		A/W
$V_R = 5\,V, \lambda = 870\,nm$	$s(\lambda)$		0.60		A/W
Peak wavelength sensitivity	λ_p		930		nm
Range of spectral bandwidth	$\lambda_{0.5}$		600...1050		nm
Dark resistance $V_R = 10\,mV, E = 0, f = 0$	R_D		1		$G\Omega$
Junction capacitance $V_R = 3\,V, f = 1\,MHz$	C_j		4		pF

Switching characteristics
$V_R = 10\,V, R = 50\,\Omega, \lambda = 820\,nm$

Rise time	t_r		12	ns
Fall time	t_f		12	ns
Cut-off frequency $\lambda = 660\,nm$	f_g		200	MHz