

**1A446 OECA-ST100C**

**850 nm High-Performance PIN**

**Description**

The 1A446 OECA-ST100C is GaAs PIN photodiode in a ST-receptacle. The assembled TO-46 case is electrical isolated from the ST-receptacle ( maximum voltage 20V ) to protect the diode against ESD-damaging. The device is designed for datacom and general purpose applications.



**Applications**

- Datacom
- General applications

**Features**

- Low dark current
- High speed
- Low capacitance

This picture gives only an impression how the real device will look like. For details and pin out please refer to the drawing.

**Absolute Maximum Ratings**

Parameter	Symbol	min.	max.	Unit
Reverse Voltage	$V_R$		30	V
Operating Temperature	$T_{OP} = T_C$	-40	+85	°C
Storage Temperature	Tstg	-40	+85	°C
Soldering Temperature / Soldering Time	Tsold / tsold		260/10	°C/s

**Optical and Electrical Characteristics**

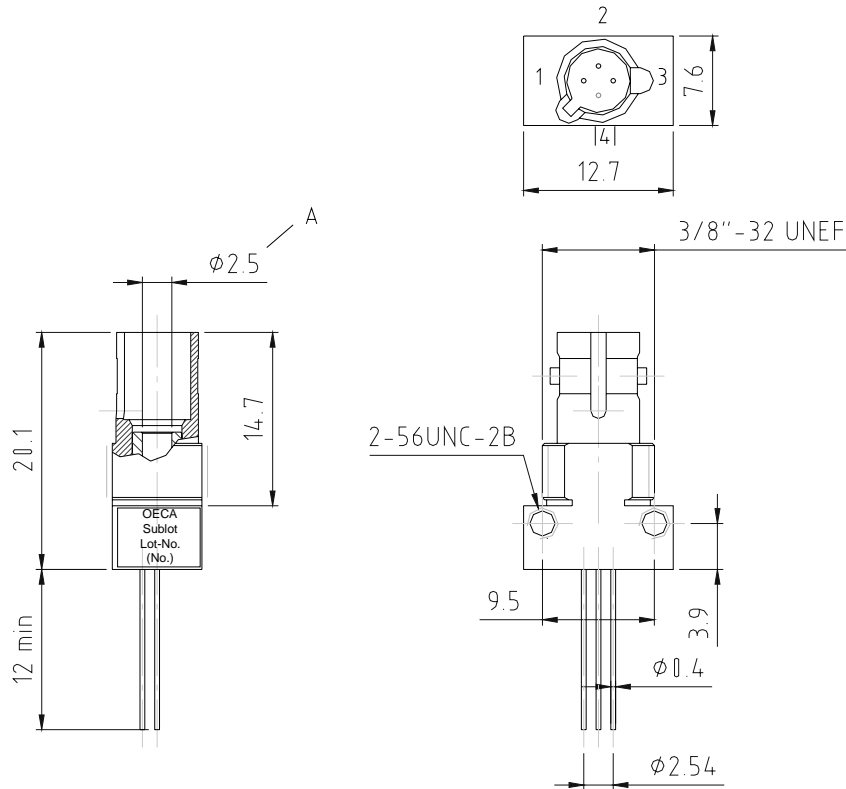
(TC = 25°C ± 2°C)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Responsivity	R	$V_R = 3.3V; 5V$ $\lambda = 850nm$ optimized for 50/125 $NA = 0.2$	0.4			A/W
Bandwidth	$f_c$	$V_R = 3.3V; 5V$ $R_L = 50\Omega$		1.5		GHz
Capacitance	C	$V_R = 3.3V; 5V$ $f = 1 MHz$		0.8		pF
Dark current	$I_d$	$V_R = 3.3V; 5V$			0.4	nA

**Thermal Characteristics**

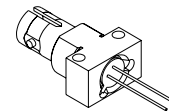
Parameter	Symbol	min.	typ.	max.	Unit
Temperature Coefficient – Dark current	$d I_d / dT_j$		5		%/°K

**Drawing**



A - tolerance grade 1 DIN EN 61754-2  
tolerances acc. to DIN ISO 2768mH  
Pinout according to specification

Accessories: dust cover  
nut 3/8"-32 UNEF  
washer 3/8"  
2x screw 2-56UNC



All dimensions in mm

**Pin-Out**

Pin	1A446
1	Anode ( + )
2	Cathode ( - )
3	Case

Ordering code: 1A446 OECA-ST100C - 02.93.0026.1