

66P025BC OECA-ST145

PIN/Preamp 25Mbps
660nm / 850nm

Description

The 66P025BC OECA-ST145 integrates a high sensitive Si-PIN photodiode and a low noise transimpedance amplifier (TIA) in a DIP-receptacle with metal flange for ST connector. The CMOS-output makes it ideal for sensitive coupling of optical signals directly into logic applications. The device is designed for multimode fiber; HCS fiber and POF, with core-diameter up to 980µm. The assembled TO-46 device is electrical isolated from the ST metal flange (maximum voltage 20V) to protect the diode against ESD-damaging.

Applications

- Digital applications
- Automation environment

Features

- CMOS compliant
- Data rate from DC up to 25Mbps
- Spectral response 400 to 1000nm
- Automatic gain control
- 30dB optical dynamic range
- Low noise TIA
- Single 5V supply
- Low power consumption



Device can differ from picture.
For details and pin out please refer to the drawing.

Absolute Maximum Ratings

Parameter	Symbol	min.	max.	Unit
Supply Voltage	V_{DD}	-0.3	5.25	V
Optical Input Power ($\lambda = 850\text{nm}$)	P_{max}		3	dBm
Operating Temperature	$T_{OP} = T_C$	-20	+85	°C
Storage Temperature	T_{stg}	-40	+85	°C
Soldering Temperature	$T_{S/ts}$		260/10	°C/s

Recommended Operating Conditions

Parameter	Symbol	min.	typ.	max.	Unit
Supply Voltage	V_{DD}	4.75	5.0	5.25	V

Optical and Electrical Characteristics

$T_C=25^{\circ}\pm 2^{\circ}\text{C} / V_{DD}=5\text{V}$

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Output Voltage - high	V_{OHI}		$0.7 * V_{DD}$			V
Output Voltage - low	V_{OLO}				$0.3 * V_{DD}$	V
Output Current	I_O				10	mA
Spectral Response Range	λ		400		1000	nm
Data Rate		Note 1	25			MBit/s
Sensitivity	S	$\lambda=660\text{nm}$ ^{note 1,2} $\lambda=850\text{nm}$ ^{note 1,3}	-30			dBm
Dynamic Range			30			dB
Power Supply Current	I_{CC}			35		mA

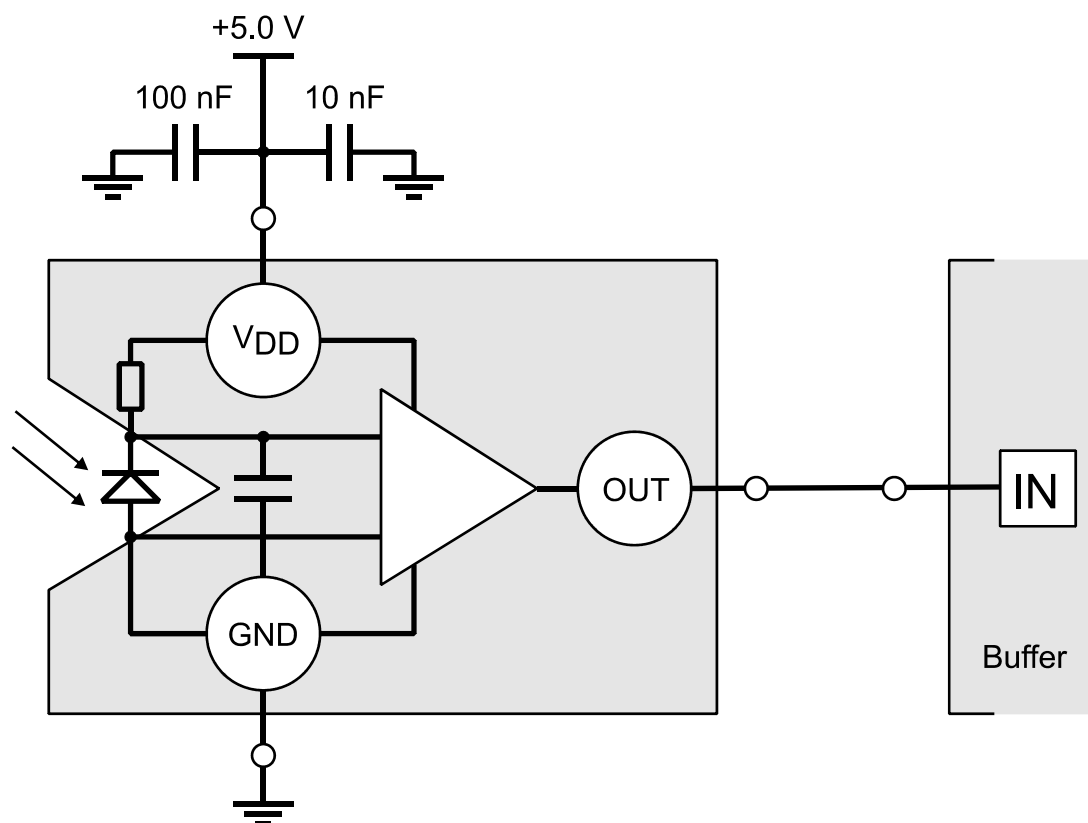
Note 1: BER= 10^{-9} (NRZ), PWD<20%

Note 2: 980/1000 μm POF

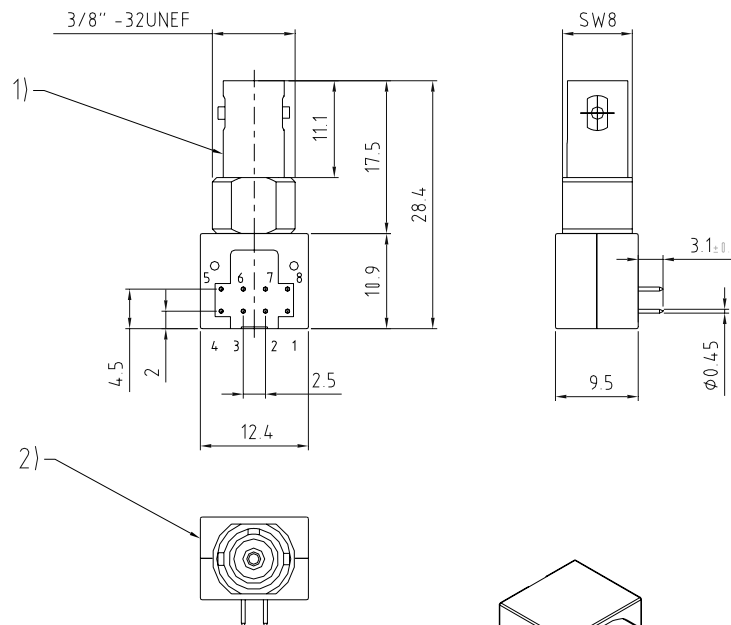
Note 3: 50/125 μm

Incident power causes high output level (non inverted)

Functional Schematic



Drawing

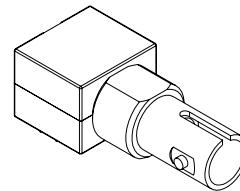


1) ST metal flange acc. to IEC / DIN EN 61754-2
sleeve grade 3
2) housing PA6.6 black

Pinout acc. to specification
tolerances +/-0.1 unless otherwise stated

accessories: dust cap

all dimension in mm



PinOut (optional)

Pin	66P025BC
1	nc
2	V _{DD}
3	GND
4	nc
5	nc
6	OUT
7	GND
8	nc

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