



## Model No. PDT-A85P4-1MA4

## 125MHz 850nm GaAs PIN plus AGC Pre-amplifier Photodiode in TO-46 Package

## FEATURES

- Industry standard TO-46 package with cap lens
- Optimized for fiber optic application
- Suitable for 100/155 Mbps applications
- Single power supply from 3.0 to 5.5 Volt

ELECTRO-OPTICAL CHARACTERISTICS (Typical values are at  $V_{CC} = 3.3V$ )

PARAMETERS	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
POWER SUPPLY	$V_{CC}$	3.0		5.5	V	
SUPPLY CURRENT	$I_{CC}$			35	mA	No loads
DIFFERENTIAL OUTPUT VOLTAGE	$V_d$			1	V	$\lambda = 850nm, 0 \text{ dBm}$
DATA OUT RISE TIME (10-90%)	$t_r$			4.5	ns	$\lambda = 850nm, P_f = 10uW$
DATA OUT FALL TIME (10-90%)	$t_f$			4.5	ns	$\lambda = 850nm, P_f = 10uW$
OUTPUT RESISTANCE (SINGLE-END)	$R_{out}$		50		Ohm	
BANDWIDTH	BW	115			MHz	$\lambda = 850nm, P_f = 10uW$
SATURATION POWER	$P_{sat}$	-3			dBm	$\lambda = 850nm$
GAIN @ 1Mbps → SINGLE-END	$G_s$	0.05		40	mV/uW	$\lambda = 850nm, R_{load} = 50 \text{ ohm}$
GAIN @ 1Mbps → DIFFERENTIAL	$G_d$	0.10		80	mV/uW	$\lambda = 850nm, R_{load} = 100 \text{ ohm}$
SENSITIVITY				-31	dBm	$\lambda = 850nm, 155Mbps, BER 10^{-10}$

## ABSOLUTE MAXIMUM RATINGS

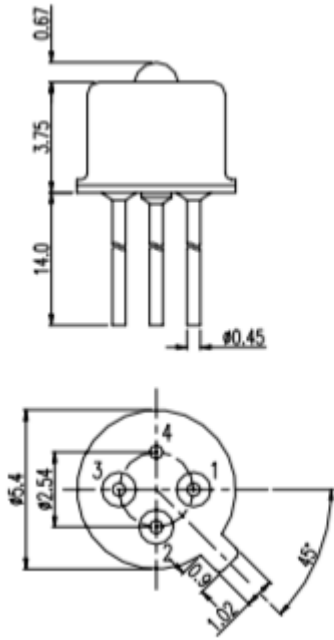
PARAMETERS	MIN.	MAX.	UNIT	CONDITIONS
STORAGE TEMPERATURE	-40	100	°C	
OPERATING TEMPERATURE	-40	85	°C	
LEAD SOLDER TEMPERATURE		260	°C	10 seconds

Notes: The above specifications are subject to change without notice.





OUTLINE DIMENSIONS (unit: mm)



Pinout

- 1.Vcc
- 2.Dout
- 3.Dout
- 4.Gnd

