

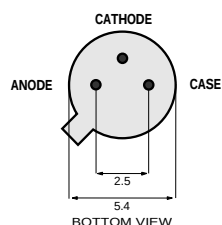
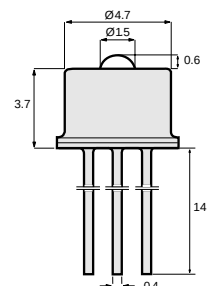
PRODUCT INFORMATION

750nm
850nm

1A354
High-Performance PIN

Datacom, General Purpose

The very high speed and low capacitance of this GaAs PIN Photodiode makes it ideal for datacom and general purpose applications. Its double-lens optical system is designed for single-mode fiber as well as for multimode fiber with core diameter up to 62.5µm. And a reverse voltage of only 5 Volts makes interfacing to a preamplifier easy.



All dimensions in mm

The diode chip is isolated from the case.

TO-46 Package With Lens

Optical and Electrical Characteristics (25° C Case Temperature)

PARAMETER	SYMBOL	MIN.	TYP	MAX.	UNIT	TEST CONDITION
Responsivity (Fig.1 &2) (Table 1)	R	0.35	0.45		A/W	$\lambda=850\text{nm}$
Bandwidth	f_c		1		GHz	$R_L=50\Omega$
Capacitance (Fig. 4)	C		1	2	pF	$f=1\text{MHz}$
Dark Current	I_d		0.4	1	nA	

Operating Conditions: $V_R=5\text{V}$. Fiber: Single-mode to multimode 62.5/125µm.

Absolute Maximum Ratings

PARAMETER	SYMBOL	LIMIT
Storage Temperature	T_{stg}	-55 to +125°C
Operating Temperature	T_{op}	-55 to +125°C
Reverse Voltage	V_R	30V
Soldering Temperature (2mm from the case for 10 sec)	T_{sld}	260°C

Thermal Characteristics

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Temperature Coefficient - Dark Current	dI_d/dT_j		5		%/°C

12627.11 1998-02-04



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Typical Responsivity			
Core Diameter/Cladding Diameter Numerical Aperture			
10/125 μm 0.11	50/125 μm 0.20	62.5/125 μm 0.275	
0.45 A/W	0.45 A/W	0.45 A/W	

Table 1

