



T-41-53

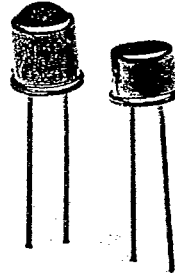
OPTO TECHNOLOGY

PIN SILICON PHOTODIODE

TYPE OT 425

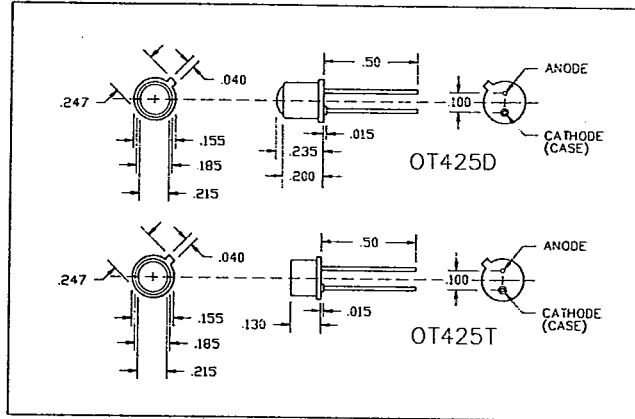
Features

- TO-46 Hermetically sealed package
- Wide or narrow receiving angle
- Linear response vs. irradiance



Description

Opto Technology's OT 425 consists of a PIN silicon photodiode mounted in a TO-46 hermetically sealed package. The device offers high speed, sensitivity and has an acceptance half angle of 10 degrees measured from the optical axis to the half power point for the OT 425D, and 40 degrees for the OT 425T. The die size mounted in the package is .072 x .072.



Absolute Maximum Ratings⁽⁴⁾

Reverse Voltage	35 V
Storage Temperature Range	-65°C to +150°C
Operating Temperature Range	-65°C to +125°C ⁽³⁾
Lead Soldering Temperature (1/16 inch [1.6 mm] from case for 5 sec. with soldering iron)	260°C ⁽¹⁾
Power Dissipation	150 mW ⁽²⁾

Notes:

- RMA flux is recommended. Duration can be extended to 10 sec. max. when wave soldering.
- Derate 1.50 mW/°C above 25°C ambient.
- Light sources is unfiltered tungsten bulb operating at CT = 2870°K or equivalent infrared source.
- T_A = 25°C unless otherwise noted.

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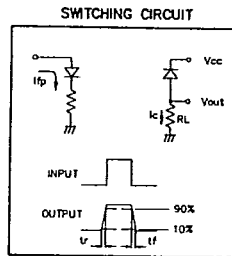
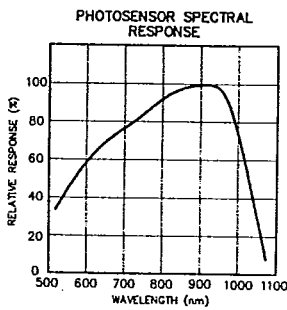
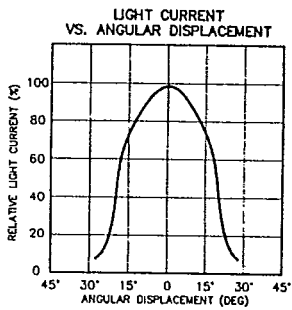
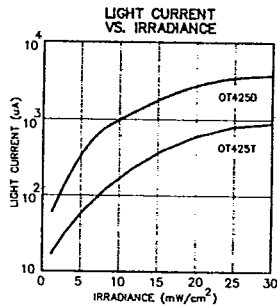
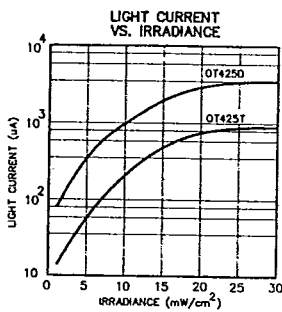
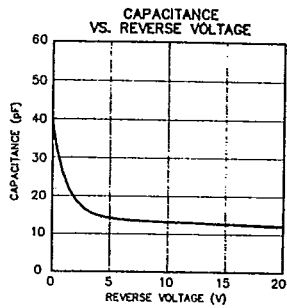
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Electrical Characteristics: (25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS
Open Circuit Voltage $H = 1 \text{ mW/cm}^2$ (3)	V_{OC}		.33		V
Light Current $H = 1 \text{ mW/cm}^2$ (3) OT 425D OT 425T	I_L	35 8	60 14		μA μA
Dark Current $V_R = 20\text{V}$	I_D			100	nA
Reverse Breakdown Voltage $I_R = 100\mu\text{A}$	$V_{(BR)R}$	35			V
Total Capacitance, $V = 0, f = 1\text{MHz}$	C_t		40		pF
Spectral Sensitivity	λ	450		1050	nm
Peak Wavelength	λ_P		920		nm
Rise Time $V_R = \text{ , } R_L = 1\text{K}\Omega$	t_r		1		μs
Fall Time $V_R = \text{ , } R_L = 1\text{K}\Omega$	t_f		1		μs
Half Angle OT 425D OT 425T	ϕ_H		± 10 ± 40		deg deg

SILICON PHOTODIODES

TYPICAL PERFORMANCE CURVES



Opto Technology reserves the right to make changes at any time to improve product design and reliability.