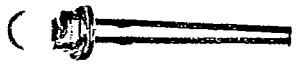
OPTO TECHNOLOGY

PN SILICON PHOTODIODE

TYPE OT 423

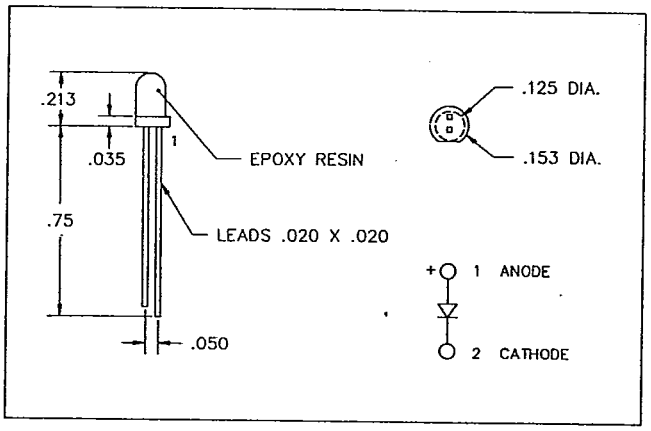


Features

- Low cost
- High speed
- T-1 plastic package

Description

Opto Technology's OT 423 consists of a PN junction silicon photodiode mounted in a clear plastic, end-looking T-1 package. The device offers high speed and sensitivity and has an acceptance half angle of 16 degrees measured from the optical axis to the half power point.



Absolute Maximum Ratings[4]

Reverse Voltage	20 V
Storage Temperature Range	−20°C to +80°C
Operating Temperature Range	−20°C to +80°C[3]
Lead Soldering Temperature (1/16 inch [1.6 mm] from case for 5 sec. with soldering iron)	240°C[1]
Power Dissipation	100 mW[2]

Notes:

(1) RMA flux is recommended. Duration can be extended to 10 sec. max. when wave soldering.
(2) Derate 1.80 mW/°C above 25°C ambient.
(3) Light sources is unfiltered tungsten bulb operating at CT = 2870°K or equivalent infrared source.
(4) T_A = 25°C unless otherwise noted.

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TYPE OT 423

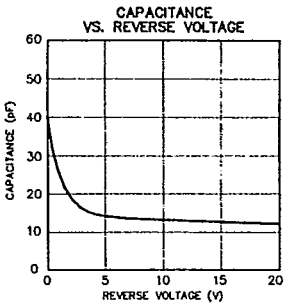
T-41-51

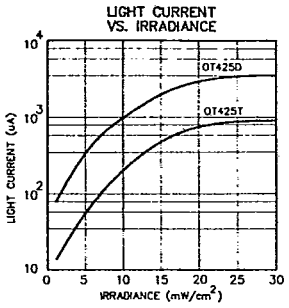
Electrical Characteristics: (25°C)

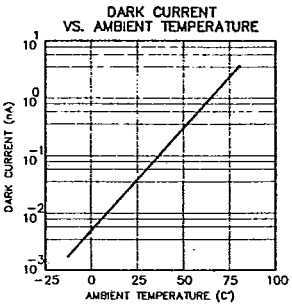
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS
Open Circuit Voltage H = 1mW/cm² (3)	V_{OC}		.4		V
Light Current H = 1mW/cm² (3)	I_L	6	12		µA
Dark Current V_R = 5V	I_D			500	nA
Reverse Breakdown Voltage I_R = 100µA	$V_{(BR)R}$	20			V
Total Capacitance, V = 0, f = 1MHZ	C_t		4		pF
Spectral Sensitivity	λ	450		1050	nm
Peak Wavelength	λ_P		900		nm
Rise Time V_R = , R_L = 1KΩ	t_r		1		µs
Fall Time V_R = , R_L = 1KΩ	t_f		1		µs
Half Angle	ϕ_H		±16		deg

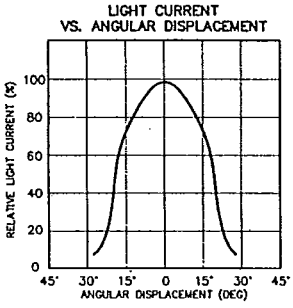
SILICON PHOTODIODES

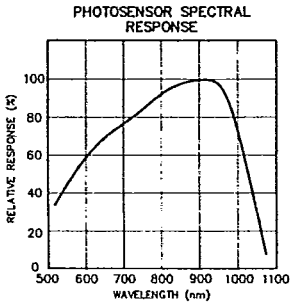
TYPICAL PERFORMANCE CURVES

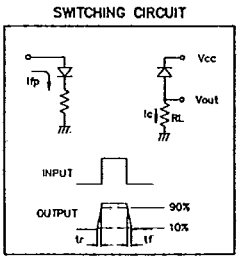












Opto Technology reserves the right to make changes at any time to improve product design and reliability.

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