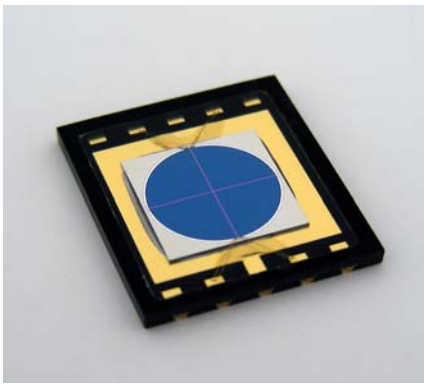
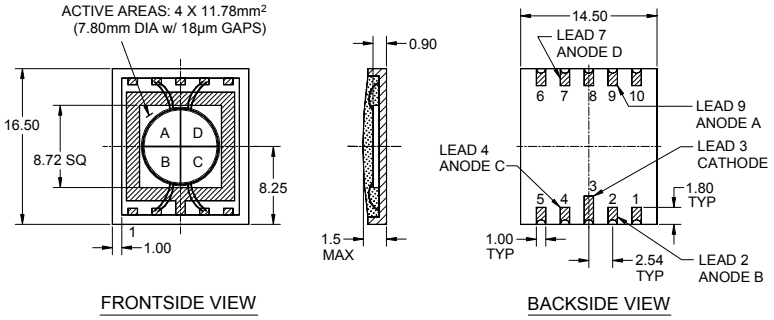
Pacific Silicon Sensor Quadrant Series Data Sheet

Part Description QP50-6-18u-SM

Order # 01-049





FEATURES

- ∅ 7.80 mm active area
- Small gap
- Low dark current
- High resolution

DESCRIPTION

4 X 11.78 mm^2 Low Dark Current Quadrant Photodiode with P on N construction and 18 µm gaps. Surface mount packaged with clear epoxy encapsulant.

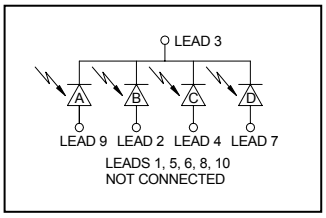
APPLICATIONS

- Laser beam position sensor
- Autocollimators
- Optical tweezers
- Ellipsometers

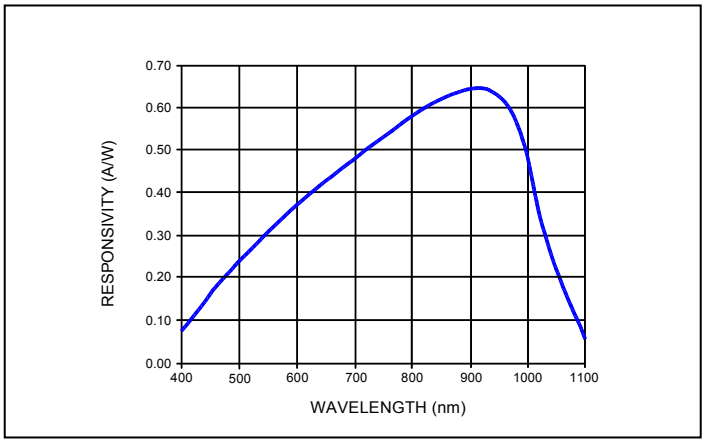
ABSOLUTE MAXIMUM RATING

SYMBOL	PARAMETER	MIN	MAX	UNITS
T_{STG}	Storage Temp	-15	+80	°C
T_{OP}	Operating Temp	-15	+60	°C
$V_{R(OP)}$	Reverse Operating Voltage	-	50	V
$I_{(PEAK)}$	Peak DC Current	-	10	mA

SCHEMATIC



SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS @ 22° C

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_D	Dark Current*	V_R = 10 V	---	2.0	---	nA
C	Capacitance*	V_R = 10 V	---	---	25.0	pF
	Responsivity	V_R = 0 V; λ = 633 nm	---	0.40	---	A/W
		V_R = 0 V; λ = 900 nm	---	0.64	---	
V_{BR}	Breakdown Voltage	I_R = 10 µA	---	15	---	V
t_r	Rise Time	V_R = 10 V; λ = 850 nm; R_L = 50 Ω	---	40	---	ns
	Uniformity of Sensitivity	V_R = 10 V; λ = 880 nm	---	±1	±2	%

* per element

Disclaimer: Due to our policy of continued development, specifications are subject to change without notice.
Package is not suitable for reflow soldering.

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