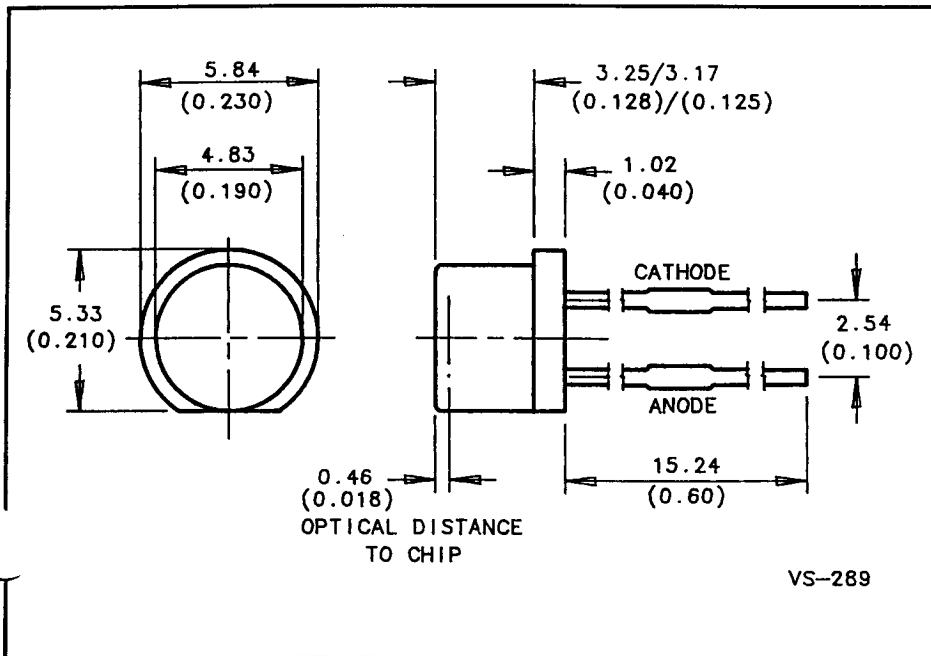


**Si APD (04-22-97)**
**LOW COST SILICON AVALANCHE PHOTODIODE (Plastic Encapsulated Package) C30724P**

**Features:**

- 0.5mm Diameter
- High Quantum Efficiency: 75% @ 900nm
- Low Capacitance: ~ 1pF
- Low Operating Voltage, 120V to 200V
- Plastic Sealed Package
- Fast Time Response - Typically 5ns
- High Bandwidth
- Low Noise

**Applications:**

- High volume Laser Range Finding and Communication Applications

**Product Information**

The C30724P avalanche photodetector is designed for operation at gains in the range 10 to 20. The operating voltage range is 120 to 200 volts, and in many applications, the APD can be operated at a fixed bias voltage, without the need for temperature compensation.

The C30724P provides high responsivity in the wavelength range 800 to 950nm, and rise and fall times of about 5 ns, with no "tail" in the fall time characteristic. The C30724P is

particularly suited for high volume applications such as Laser Range Finding, Optical Communication Systems and other applications requiring high speed, low noise, and gains in the range 10 to 20.

**Quality and Reliability**

EG&G Optoelectronics Canada is committed to supplying to highest quality product to our customers, we are certified to meet ISO-9001 and operate to MIL-Q-9858A and AQAP-1 quality standards.

**Ordering Information**

The C30724P intended use is for large volume applications. The minimum quantity order is 10,000 units per year. For more information on pricing and large volume price discounts, please contact EG&G Optoelectronics Canada, 22001 Dumberry, Vaudreuil, Quebec, Tel: (514)-424-3300, Fax: (514)-424-3411.

**Specifications (at  $V_R = V_{OP}$  (160 volts), 22 °C)**

PARAMETER	C30724P			UNITS
	MIN	TYP	MAX	
Diameter		0.5		mm
Gain @ 900nm (@ $V_{OP} = 160V$ )	12	15	18	
Dark Current		20	40	nA
Noise Current, $i_n$ : $f = 10kHz, \Delta f = 1.0Hz$		0.1	0.25	$\mu A/\sqrt{Hz}$
Capacitance @ $V_R = V_{OP}$		1.0		pF
Rise time/Fall Time (10% to 90%)		5		nsec

**Operating Ratings**

PARAMETER	C30724P			UNITS
	MIN	TYP	MAX	
Operating Voltage	120		200	V
Breakdown Voltage		350		V
Maximum Forward Current			5	mA
Power Dissipation			60	mW
Storage Temperature	-60		100	°C
Operating Temperature	-10		60	°C

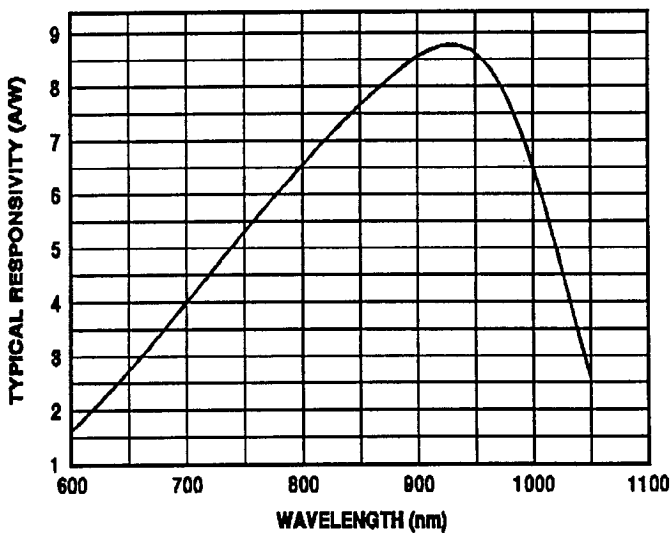


Figure 1: Typical Spectral Responsivity vs. Wavelength.

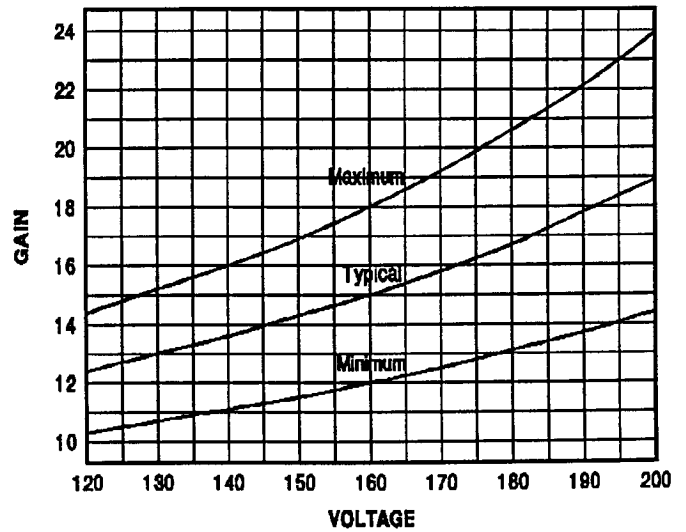


Figure 2: Typical Gain Range vs. Voltage.



22001 Dumberry Road,  
Vaudreuil, Quebec  
Canada J7V 8P7

TEL (514) 424-3300  
FAX (514) 424-3411

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