

APDI-30P-RM

InGaAs PHOTODIODE MODULES

These modules APDI-30P-RM are detector modules optical matching InGaAs avalanche photodiode for long wavelength band (800~1650nm) and single-mode fiber pigtails. These modules are used as detectors for optical time domain reflectometer (OTDR).

Absolute maximum ratings

Reverse current, I_R	500 μ A
Forward current, I_f	10mA
Operating case temperature, T_C :	-40 \div +60 $^{\circ}$ C
Storage temperature, T_{stg}	-40 \div +60 $^{\circ}$ C

Electrical / optical characteristics (SM, T=25 $^{\circ}$ C)

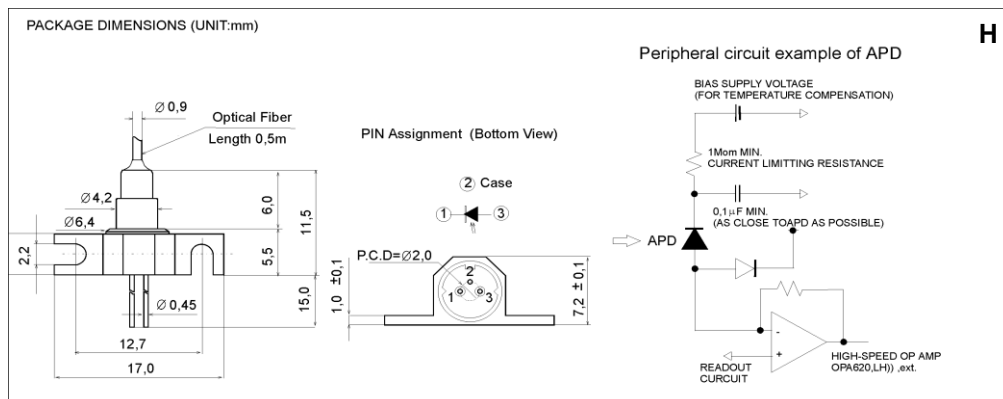
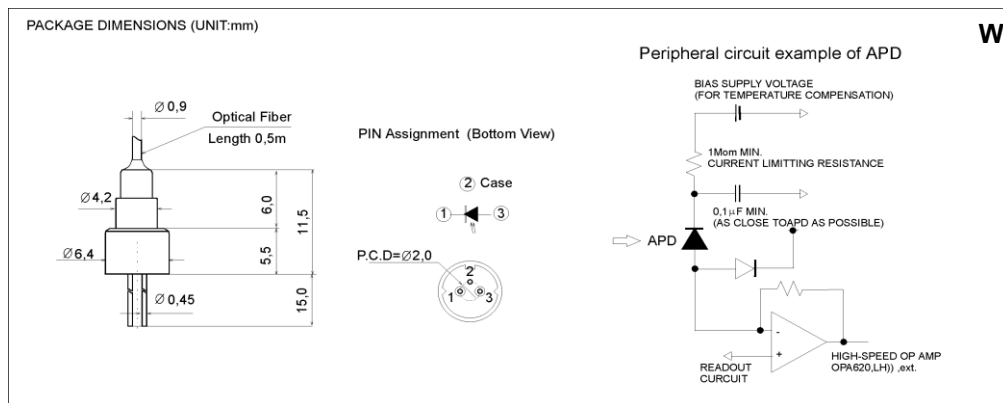
Parameter		Min.	Typ.	Max.	Unit	Test conditions
Responsivity	S_λ	0.85	1.0		A/W	M = 1, λ = 1550nm
Multiplication factor	M	30	40			λ = 1550nm, $V_R = V(I_D = 1\mu A)$
Temperature coefficient of breakdown voltage *	δ		0.2		%/ $^{\circ}$ C	
Breakdown voltage	V_{BR}		80	100	V	
Dark current	I_D		2	20	nA	$V_R = 0.9V_{BR}$
Capacitance	C_t		0.35	0.6	pF	$V_R = 0.9V_{BR}$, F=1MHz
Cutoff frequency	f_c	2.5			GHz	M = 1, λ = 1550nm, $R_L = 50\Omega$, -3dB

* $\delta = [V_{BR}(25^{\circ}C + \Delta T^{\circ}C) - V_{BR}(25^{\circ}C)] / [\Delta T^{\circ}C - V_{BR}(25^{\circ}C)]$

Ordering information

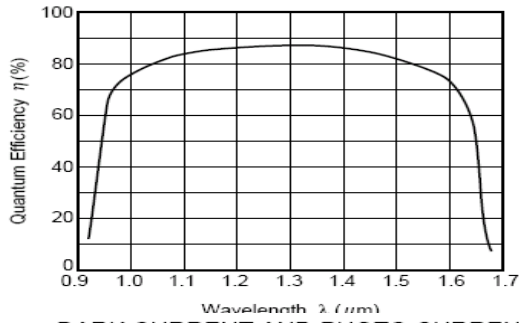
APDI-30P-RM-X-SM-X

Connector type: **FC/UPC, FC/APC, N** – without connector
Case type: **W, H**

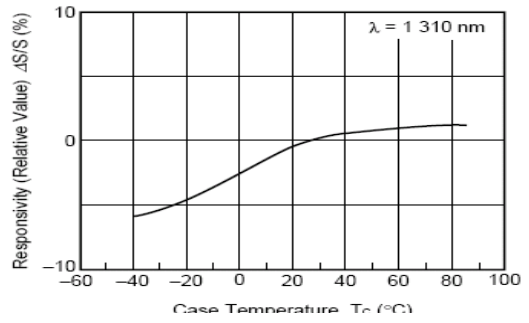


ATTENTION: ELECTROSTATIC SENSITIVE DEVICES

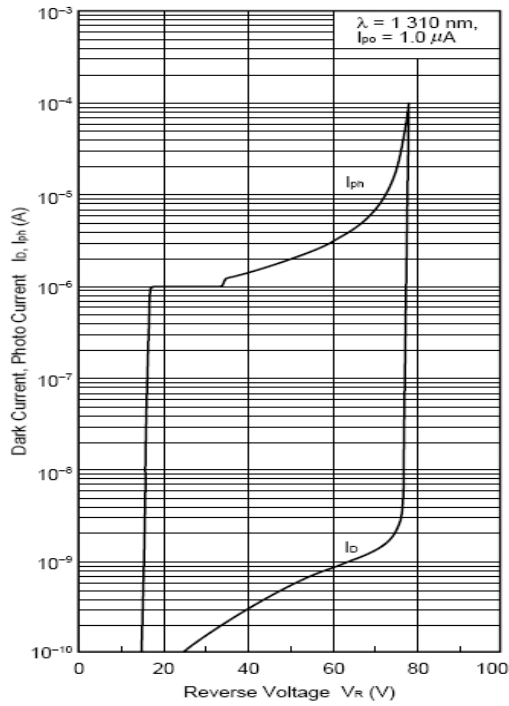
WAVELENGTH DEPENDENCE OF QUANTUM EFFICIENCY



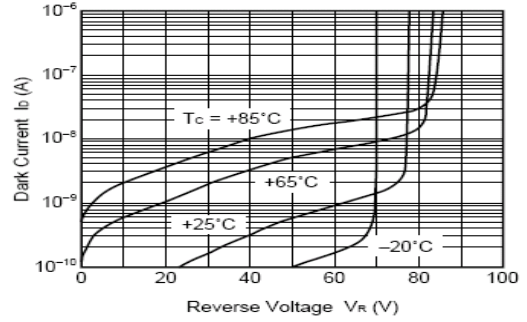
TEMPERATURE DEPENDENCE OF RESPONSIVITY



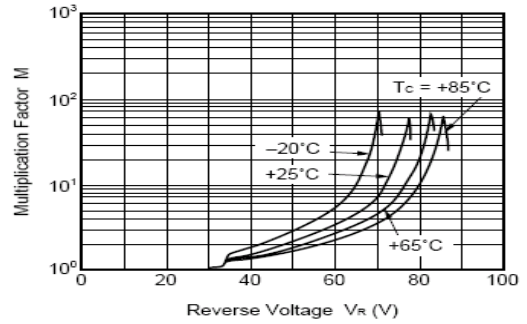
DARK CURRENT AND PHOTO CURRENT vs. REVERSE VOLTAGE



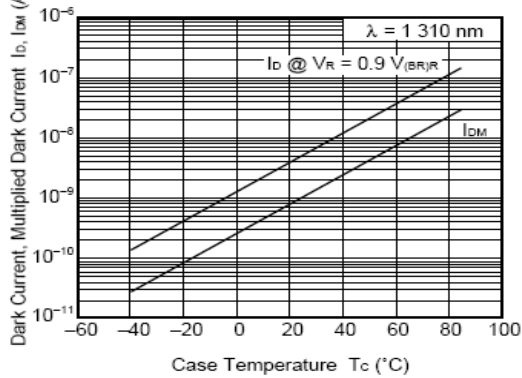
DARK CURRENT vs. REVERSE VOLTAGE



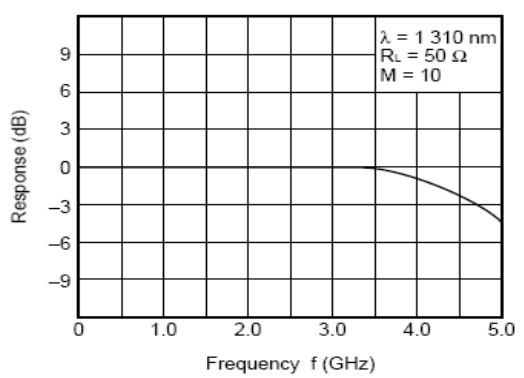
MULTIPLICATION FACTOR vs. REVERSE VOLTAGE



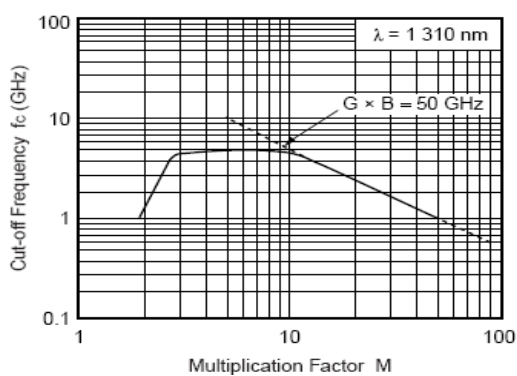
TEMPERATURE DEPENDENCE OF DARK CURRENT AND MULTIPLIED DARK CURRENT



FREQUENCY RESPONSE



CUT-OFF FREQUENCY vs. MULTIPLICATION FACTOR



TERMINAL CAPACITANCE vs. REVERSE VOLTAGE

