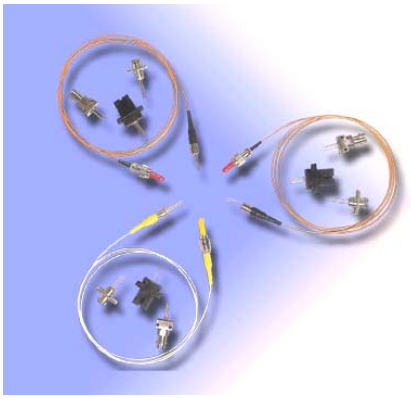
Large Area InGaAs PIN Photodiode Module

Features



- High Responsivity
- Low dark current, typ. <1nA
- Operating temperature range -40°C to 85°C
- Hermetically sealed TO-18 package in pigtailed or receptacle housing with FC, ST, SC, LC, MU or SMA connector

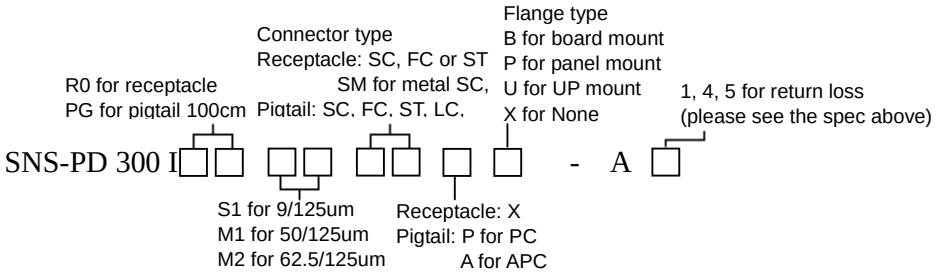
Specifications (T=25°C, -5V)

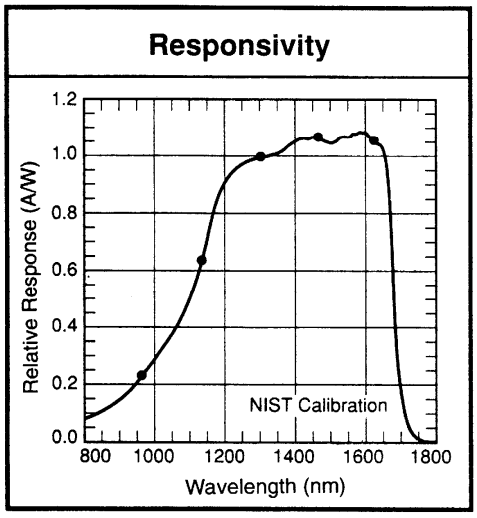
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Active Area			300	-	-	um
Responsivity	R	5V, 25-C				A/W
850nm			0.15	0.25		A/W
1300nm			0.8	0.9		A/W
1550nm		-	0.9	1.0		A/W
Dark Current	Id	V_R=5V, 25-C	-	-	1	nA
Shunt Resistance	Rs			60		M-Ohm
Capacitance	C	V_R=5V, 1MHz	-	6	8	pF
Return Loss						
-1(Receptacle)			14	-	-	dB
-4(Receptacle or Pigtail)			40	-	-	dB
-5(Pigtail)			50	-	-	dB

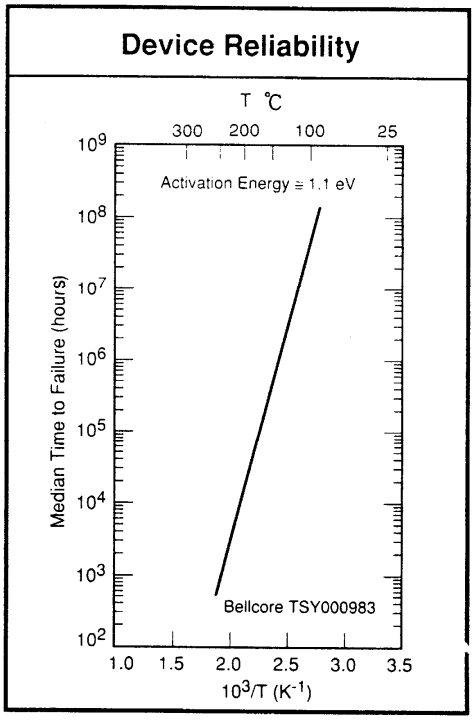
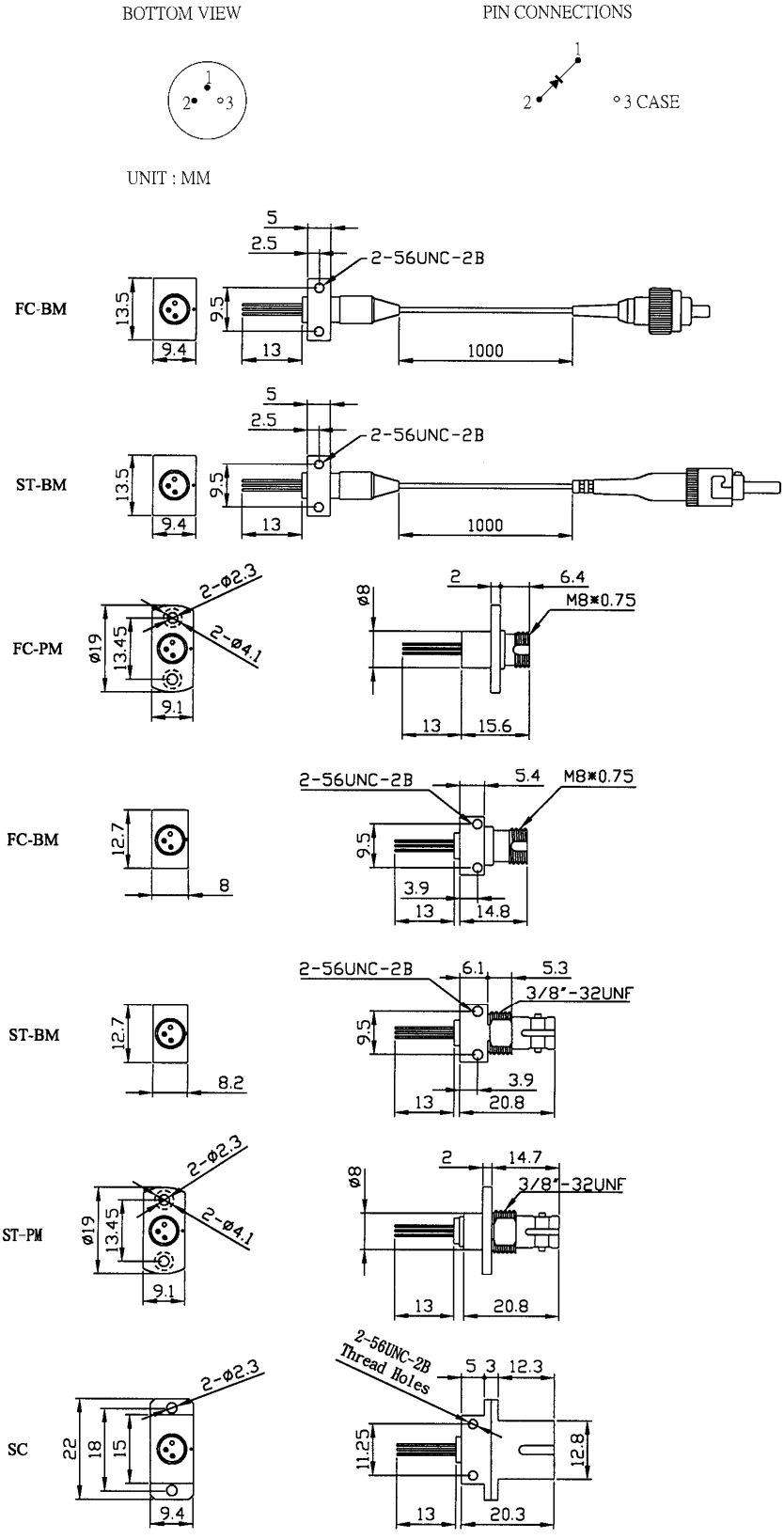
Absolute Maximum Rating

	Symbol	Min.	Max.	Unit
Operating Temperature	To	-40	+85	°C
Storage Temperature	T_{stg}	-40	+125	°C
Reverse Voltage	V_R	-	30	V
Lead Soldering Temperature (10 sec)	T_L	-	260	°C

Ordering Information




Responsivity
Relative Response (A/W)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
800
1000
1200
1400
1600
1800
Wavelength (nm)
NIST Calibration


Device Reliability
T ℃
300
200
100
25
Activation Energy ≅ 1.1 eV
Median Time to Failure (hours)
10^9
10^8
10^7
10^6
10^5
10^4
10^3
10^2
Bellcore TSY000983
1.0
1.5
2.0
2.5
3.0
3.5
$10^3/T\ (K^{-1})$

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