

◆ **Introduction:**

S-41GMPD20-G is a front-side illuminated InGaAs PIN chip with a mesa structure. This product has high responsivity, low dark current, and excellent reliability. It is ideally suited for low cost, high-speed data communication designs.

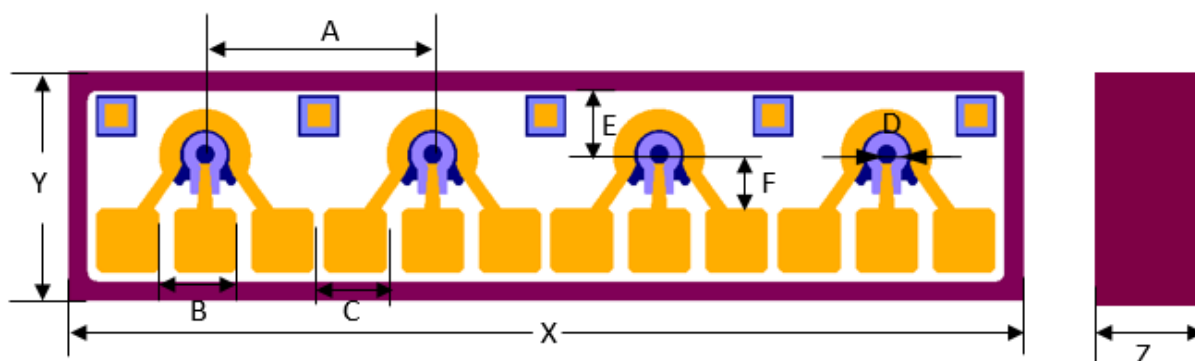
◆ **Key Features:**

- Optical aperture: 20μm
- Top-sided coplanar GSG contact pads
- Operating temperature range: -40 to +85°C
- 100% testing and inspection
- RoHS compliant

◆ **Applications:**

- 100G Ethernet
- 100G Links
- 100G CWDM4, PSM4, CLR4
- Single mode datacom and telecom

◆ **Physical Parameters:**



Symbol	Die Dimension								Aperture	Pad	
	X	Y	Z	A	B	C	E	F	D	P	N
Min	1020	230	135	245	75	75	65	55		63*63	63*63
Typ	1050	250	150	250	85	80	70	60	Φ20	68*68	68*68
Max	1070	270	165	255	95	85	75	65		73*73	73*73
Unit	μm	μm	μm	μm	μm	μm	μm	μm	μm	μm *μm	μm *μm

◆ Absolute Maximum Rating:

Parameter	Symbol	Rating		Unit
		Min	Max	
Operation Voltage	V <sub>OP</sub>		5	V
Operating Temperature	T <sub>OP</sub>	-40	85	°C
Storage Temperature	T <sub>C</sub>	-45	125	°C

◆ Specifications (T=25°C) :

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Wavelength Range	$\lambda$		1210	1310/1550	1650	nm
Dark Current	I <sub>D</sub>	V <sub>R</sub> =3V		1	10	nA
Responsivity	R <sub>e</sub>	V <sub>R</sub> =3V $\lambda$ =1310nm	0.7	0.75		A/W
Capacitance	C	V <sub>R</sub> =3V			0.1	pF
-3dB Bandwidth	BW	V <sub>R</sub> =3V $\lambda$ =1310nm	20			G3Hz