

◆ **Introduction:**

S-10BGPD10-G is a front-side illuminated GaAs 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.

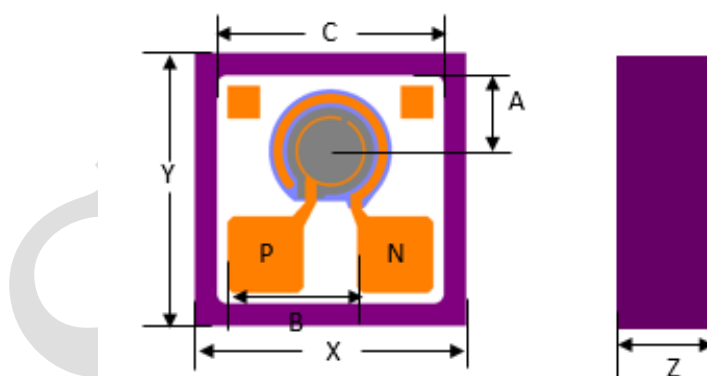
◆ **Key Features:**

- Optical aperture: 60μm
- Low capacitance
- Low dark current
- Top-sided coplanar GS contact pads
- Operating temperature range:-40 to +85°C
- 100% testing and inspection
- RoHS compliant

◆ **Applications:**

- Datacom
- Parallel multimode fiber optical communication

◆ **Physical Parameters:**



Symbol	Die Dimension						Aperture	Pad	
	X	Y	Z	A	B	C		D	P
Min	225	225	135	65	115	200		65*65	65*65
Typ	250	250	150	70	120	210	Φ60	70*70	70*70
Max	275	275	165	75	125	220		75*75	75*75
Unit	μm	μm	μm	μm	μm	μm	μm	μm*μm	μm*μm

◆ Absolute Maximum Rating:

Parameter	Symbol	Rating		Unit
		Min	Max	
Operation Voltage	V_{OP}		10	V
Forward Current	I_F		10	mA
Reverse Current	I_R		3	mA
Operating Temperature	T_{OP}	-40	85	°C
Storage Temperature	T_C	-45	125	°C

◆ Specifications (T=25°C) :

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Wavelength Range	λ		840	850	860	nm
Breakdown Voltage	V_{BR}	$I_D=1\mu A$	30			V
Dark Current	I_D	$V_R=2V$		0.1	5	nA
Responsivity	R_e	$V_R=2V$ $\lambda=850nm$	0.5			A/W
Capacitance	C	$V_R=2V$		0.15	0.20	pF
-3dB Bandwidth	BW	$V_R=2V$ $\lambda=850nm$	12			GHz