

 <b>厦门市三安集成电路有限公司</b> Xiamen Sanan Integrated Circuit Co.,Ltd.		文件编号 Doc. No.	S-10DGPD10-G-DSH-001		
		机密等级 Confidential	A		
三阶文件 Level 3	SANAN-IC S-10DGPD10-G 规格书 (内部) SANAN-IC S-10DGPD10-G Datasheet (internal)	版别 Rev. No.	1.0.0	生效日期 Effective Date	2021/02/24

# SANAN-IC

## S-10DGPD10-G Datasheet Ver.1.0.0

编制人 Reviser	审核人 Reviewer	批准人 Approver
陈振锋	刘思远	孙维忠

光技术事业部  
厦门市三安集成电路有限公司

**\*\*本文件为厦门市三安集成电路有限公司专有之财产；未经许可，不准对外公开、不准复制私自保存、亦不准转变为其它任何形式使用\*\***  
The information contained herein is the exclusive property of SANAN-IC and shall not be reproduced, or disclosed in whole or in part without prior written permission of SANAN-IC.

 <b>厦门市三安集成电路有限公司</b> Xiamen Sanan Integrated Circuit Co.,Ltd.		文件编号 Doc. No.	S-10DGPD10-G-DSH-001		
		机密等级 Confidential	A		
三阶文件 Level 3	SANAN-IC S-10DGPD10-G 规格书 (内部) SANAN-IC S-10DGPD10-G Datasheet (internal)	版别 Rev. No.	1.0.0	生效日期 Effective Date	2021/02/24

文件制/修订纪录 Revision History				
版本 Version	制(修)订者 Reviser	制(修)订日期 Date	变更章节 Change Sec.	修改说明 Description
1.0.0	陈振锋	2021/02/24	ALL	初版发行

\*\*本文件为厦门市三安集成电路有限公司专有之财产；未经许可，不准对外公开、不准复制私自保存、亦不准转变为其它任何形式使用\*\*  
 The information contained herein is the exclusive property of SANAN-IC and shall not be reproduced, or disclosed in whole or in part without prior written permission of SANAN-IC.

◆ **Introduction:**

S-10DGPD10-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.

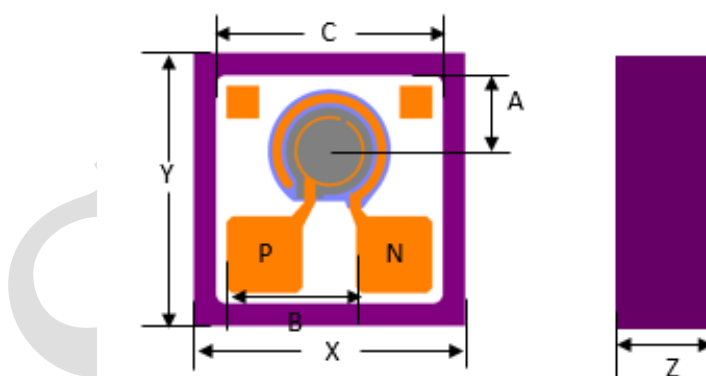
◆ **Key Features:**

- Optical aperture: 60 $\mu$ m
- Low capacitance
- Low dark current
- Top-sided coplanar GS contact pads
- Operating temperature range:-40 to +85 $^{\circ}$ 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	55	65*65	65*65
Typ	250	250	150	70	120	210	60	70*70	70*70
Max	275	275	165	75	125	220	65	75*75	75*75
Unit	$\mu$ m	$\mu$ m	$\mu$ m	$\mu$ m	$\mu$ m	$\mu$ m	$\mu$ m	$\mu$ m* $\mu$ m	$\mu$ m* $\mu$ m

◆ Absolute Maximum Rating:

Parameter	Symbol	Rating		Unit
		Min	Max	
Operation Voltage	$V_{OP}$		10	V
Forward Current	$I_F$		10	mA
Reverse Current	$I_R$		5	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	$\lambda$		760	850	860	nm
Breakdown Voltage	$V_{BR}$	$I_D=10\mu A$	30			V
Dark Current	$I_D$	$V_R=3V$		0.1	5	nA
Responsivity	$R_e$	$V_R=3V$ $\lambda=850nm$	0.5			A/W
Capacitance	C	$V_R=3V$		0.15	0.20	pF
-3dB Bandwidth	BW	$V_R=3V$ $\lambda=850nm$	8			GHz