

PIN-FET 光接收组件

PIN Field-Effect Transistor (PIN-FET)



PIN-FET(P-Intrinsic-N Field-Effect Transistor) 光接收组件光接收组件是光信号接收部分，起到光电转换并放大信号的作用。

线性响应度，线性最小光功率，线性饱和光功率，无光电压，带宽，均方根噪声电压等性能指标参数，这些参数 适用于模拟光纤传输系统如光纤传感等领域的应用。

As the optical information receiver of optical receiver system, PIN-FET (P-Intrinsic-N Field-Effect Transistor) acts as voltage amplified optoelectronic converter.

Specification Parameters, such as linearity response, minimum linear optical power, linear saturation optical power, 3dB bandwidth S21 are specially defined for the applications of analog optical fiber systems (for example, IFOG & FOCT et al fiber optic sensor).

主要特点 Features

- 低噪声、高线性度 Low Noise, High Linearity
- 相对于不同响应度，相应带宽可调 Bandwidth can be Adjust for Different Responsivity
- 封装采用 8 针与 14 针互兼容金属化结构 Compliance Of 14pins/8pins Package are Replaceable
- 良好的性能一致性和质量可靠性应用 Excellent Consistency and Reliability
- 可靠性高 High Reliability

应用领域 Applications

- 光纤陀螺 Fiber Optic Gyroscope (FOG)
- 光纤电流传感 Fiber Optic Current Transformer (FOCT)
- 其它光纤传感 Other Fiber Optic Sensing



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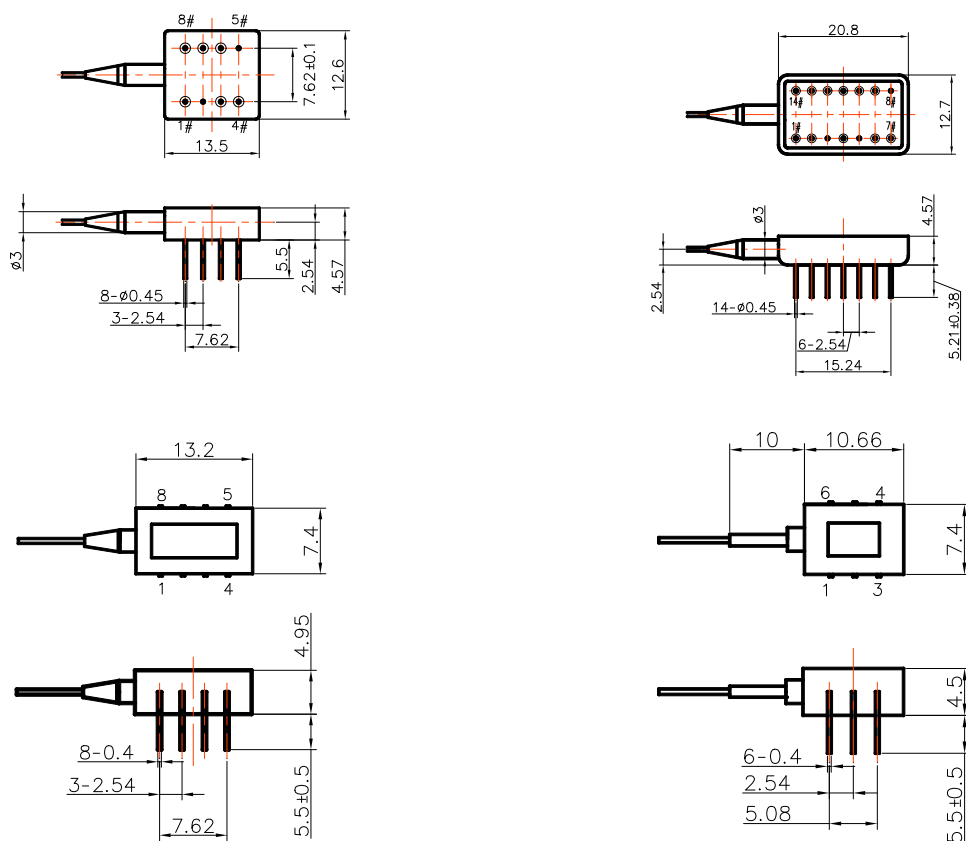
性能参数:

类别 Type	参数 Parameter	符号 Symbol	单位 Unit	性能指标 (典型值) Typical Value		
光学性能 Optical	工作波段 Operating Wavelength Band	λ_c	nm	1290~1560		
	线性响应度 Responsibility	Re	V/W	0.72	0.36	0.18
	线性响应度规格 Linear Response Specification	P_{Min}	W	J	H	F
	线性饱和光功率 Linear Maximum Optical Power	P_{Max}	W	≥ 4	≥ 8	≥ 16
	线性最小光功率 Linear Minimum Optical Power	-	-	≤ 0.03	≤ 0.05	≤ 0.1
	线性度 Linearity	LNR	%	3		
电学性能 Electrical	跨阻抗 Trans-Impedance	R_z	k	800	400	200
	3dB 带宽 3dB Bandwidth	f_B	MHz	4~10		
	噪声均方根电压 Root-Mean-Square (RMS) Voltage	$V_{N(rms)}$	mV	≤ 0.5		
封装结构 Package	封装形式及封装尺寸 (不含引脚) Package & Mechanical Size (without pins)	-	mm	见产品图纸 See package shape structure		
	尾纤类型 Fiber Pigtail Type	-	-	SM/PM, $\phi 125\mu\text{m}/80\mu\text{m}$		
	尾纤长度 Fiber Pigtail Length	L	m	1.0		
环境指标 Environment	工作温度 Working Temperature Range	T_w	$^{\circ}\text{C}$	-45~+70		
	储存温度 Storage Temperature Range	T_s	$^{\circ}\text{C}$	-55~+85		

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结构尺寸图：



选型列表：

Product code	Package Type	Trans-Impedance	Output pigtail
TSXF01	8 pins	200K	125/250 SM Fiber
TSXH02	8 pins	400k	125/250 SM Fiber
TFGF02	Mini 8 pins	200K	80/165 SM Fiber
TFGH01	Mini 8 pins	400k	80/165 SM Fiber
TGGF02	Mini 6 pins	200K	80/165 SM Fiber
TDXJ02	14 pins	800k	125/250 SM Fiber

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