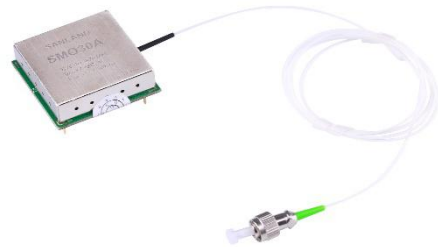


FEATURES

- Excellent Linearity
- High Optical Input Power Range
- Excellent Flatness
- Optimal Reliability
- Low Noise
- FC/APC SC/APC
- OP-AGC



DESCRIPTION

The SMO30A has an FC/APC or SC/APC connector. The amplifier supply voltage pin is connected to 5V(DC).The modules have a mono mode optical input suitable for 1290 to 1600nm wavelengths, a terminal to monitor the photo diode current and an electrical output having a characteristic impedance of 75 Ω . optical power receiving at -7~+1dBm.

15	⊕ GND	GND ⊕	1
14	⊕ GND	V _{B1} ⊕	2
13	⊕ GND	GND ⊕	3
12	⊕ GND	RF _{out} ⊕	4
11	⊕ GND	GND ⊕	5
10	⊕ S _{OP}	V _{B2} ⊕	6
9	⊕ GND	GND ⊕	7
8	⊕ GND		

PIN	NAME	DESCRIPTION	PIN	NAME	DESCRIPTION.
1	GND	Ground	8	GND	Ground
2	V _B	+12V Supply for the pin	9	GND	Ground
3	GND	Ground	10	S _{OP}	Optical Power Sense
4	RF _{out}	Output for the pin	11	GND	Ground
5	GND	Ground	12	GND	Ground
6	NC	Ground	13	GND	Ground
7	GND	Ground	14	V _{S/O}	Ground
--	--	--	15	GND	Ground

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
f	Frequency range		40	870	MHz
S ₂₂	Output return losses	f=40 to 870 MHz	12	-	dB
	Optical input return losses		45	-	dB
I _{tot}	Total current consumption(DC)	V _B =5V	150	180	mA

HANDLING

Fiberglass optical coupling: maximum tensile strength=5N;minimum bending radius=35mm

LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	CONDITION	MIN.	MAX.	UNITS
P _{in}	Optical input power	continuous	-	3	mW
T _{stg}	Storage temperature		-40	+85	°C
T _{mb}	Operating mounting base temperature		-20	+85	°C
ESD	ESD sensitivity	Human body model; R=1.5KΩ ;C=100pF	500	-	V

CHARACTERISTICS

(Bandwidth 40 to 870MHz; T_{mb}=25°C, V_B=5V, Z_S=Z_L=75Ω)

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
S	Responsivity	V/W	850	-	-	λ =1310
FL	Flatness straight line	dB	-	-	±0.5	f=40 to 870 MHz
V _o	Output voltage	dBμV	77	-	79	85 channels flat; f=543.25MHz Optical power receiving at -7~+1dBm
CTB	Composite triple beat	dB	-	-	-63	85 channels flat;
CSO	Composite second order distortion	dB	-	-	-60	measured at 543.25 MHz; Optical power receiving at -7~+1dBm
CNR	Carrier to noise ratio	dB	-	51	-	Optical power receiving at -1dBm
S ₂₂	Output return loss	dB	12	-	-	f=40 to 870 MHz
S _λ	Spectral sensitivity	A/W	0.85	-	-	λ =1310±20nm
		A/W	0.9	-	-	λ =1550±20nm
λ	Optical wavelength	nm	1290	-	1600	
I _{tot}	Total current consumption(DC)	mA	5	-	20	V _{B1} =12V
		mA	150	-	180	V _{B2} =5V

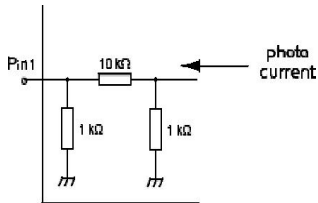
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The module normally operates at $V_B=5\text{ V}(\pm 0.1)$

PHOTODIODE CURRENT MONITOR PIN



MODULE OUTLINE

