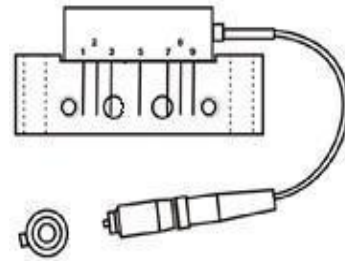


### FEATURES

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



### DESCRIPTION

The SMO815S has an FC/APC or SC/APC connector.  
 The amplifier supply voltage pin is connected to 24V(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 75Ω.

Pin	Description
1	Monitor current
5	+V <sub>B</sub>
9	Output
2、3、7、8	GND

### QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
f	Frequency range		40	870	MHz
S <sub>22</sub>	Output return losses	f=40 to 870 MHz	10	-	dB
	Optical input return losses		45	-	dB
I <sub>tot</sub>	Total current consumption(DC)	V <sub>B</sub> =24V	120	140	mA

### HANDLING

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

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 Rev B 05/2013

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### LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	CONDITION	MIN.	MAX.	UNITS
P <sub>in</sub>	Optical input power	continuous	-	3	mW
T <sub>stg</sub>	Storage temperature		-40	+85	°C
T <sub>mb</sub>	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<sub>mb</sub>=25°C, V<sub>B</sub>=24V, Z<sub>S</sub>=Z<sub>L</sub>=75Ω)

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
S	Responsivity	V/W	850	-	-	λ=1300nm
FL	Flatness straight line	dB	-	-	±0.75	f=40 to 870 MHz
V <sub>o</sub>	Output voltage	dBμV	-	88	-	60 channels flat; measured at 543.25 MHz; Optical power receiving at -1dBm
CTB	Composite triple beat	dB	63	-	-	
CSO	Composite second order distortion	dB	58	-	-	
CNR	Carrier to noise ratio	dB	50	-	-	
S <sub>22</sub>	Output return loss	dB	10	-	-	f=40 to 870 MHz
I <sub>tot</sub>	Total current consumption	mA	120	-	140	V <sub>B</sub> =24V

The module normally operates at V<sub>B</sub>=24 V(±0.5)

### MODULE OUTLINE

MODULE CONFIGURATION PHOTO

