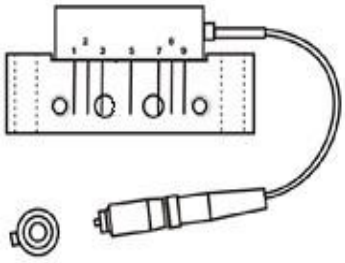
SANLAND

GaAs Optical Receivers SMO815M1/CATV

FEATURES

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



DESCRIPTION

The SMO815M1 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	$+V_B$
9	Output
2、3、7、8	GND

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	-10	-	dB
	Optical input return losses		45	-	dB
I_{tot}	Total current consumption(DC)	V_B=24V	100	130	mA

HANDLING

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

LIMITING VALUES

SANLAND ELECTRONIC

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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	℃
T_{mb}	Operating mounting base temperature		-20	+85	℃
ESD	ESD sensitivity	Human body model; R=1.5KΩ;C=100pF	500	-	V

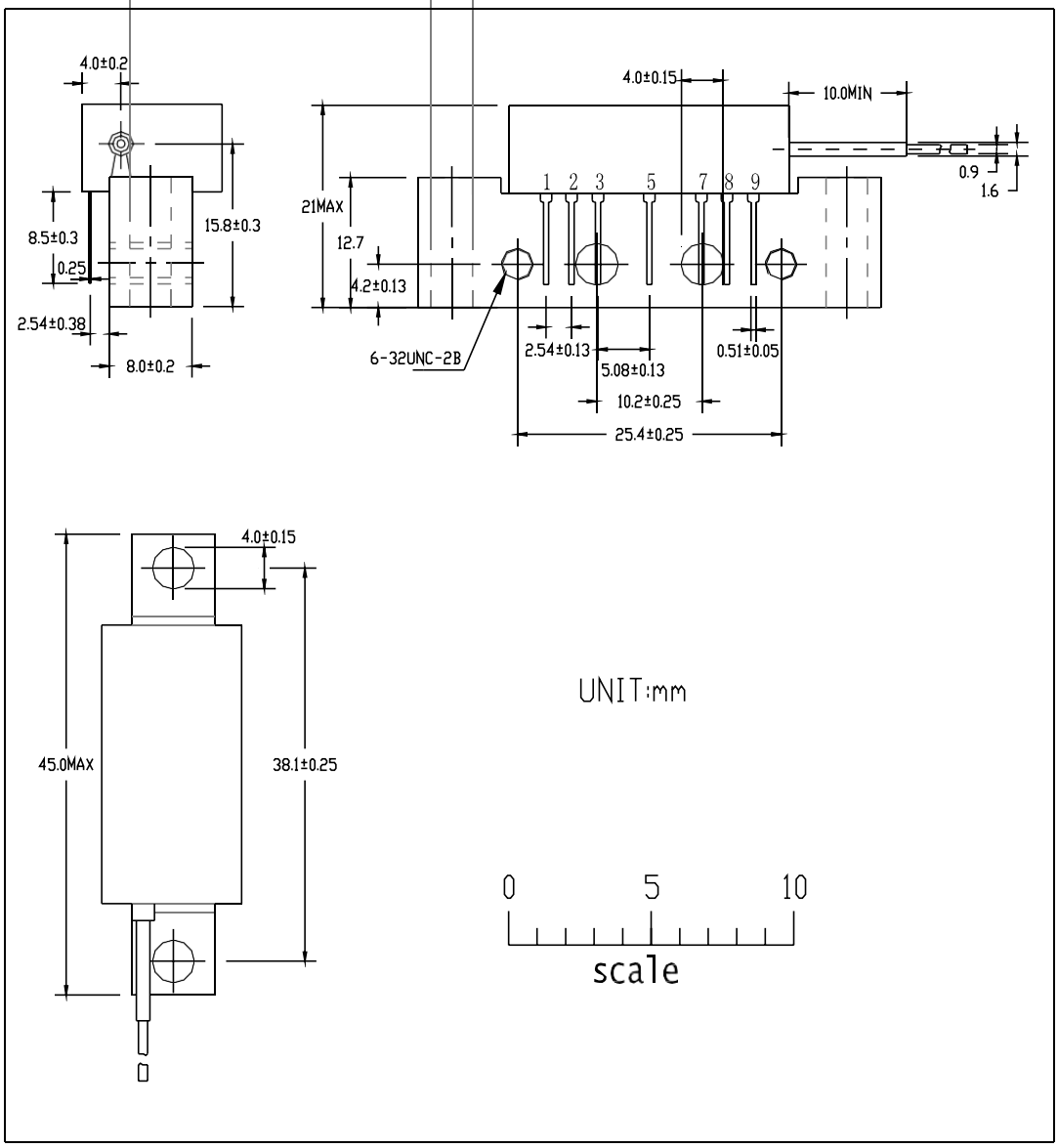
CHARACTERISTICS

(Bandwidth 40 to 870MHz; T_{mb}=25℃, V_B=24V, Z_S=Z_L=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_o	Output voltage	dBμV	-	88	-	60 channels flat; Measured at 543.25MHz; Optical power receiving at -1dbm
CTB	Composite triple beat	dB	-63	-	-	
CSO	Composite second order distortion	dB	-60	-	-	
CNR	Carrier to noise ratio	dB	-50	-	-	
S_{22}	Output return loss	dB	-10	-	-	f=40 to 870 MHZ
I_{tot}	Total current consumption	mA	100	-	130	V_B=24V

The module normally operates at V_B=24V(±0.5)

MODULE OUTLINE


4.0±0.2
8.5±0.3
0.25
15.8±0.3
2.54±0.38
8.0±0.2
4.0±0.15
10.0MIN
21MAX
12.7
4.2±0.13
1 2 3 5 7 8 9
0.9
1.6
6-32UNC-2B
2.54±0.13
5.08±0.13
10.2±0.25
25.4±0.25
0.51±0.05
4.0±0.15
45.0MAX
38.1±0.25
UNIT:mm
0 5 10
scale