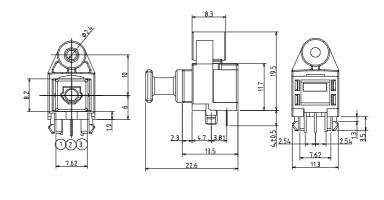
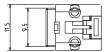
## **Features**

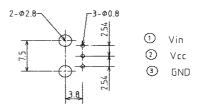
- 1.Uni-directional data transmission using plastic fiber
- 2.Signal transmission speed
  - :MAX. 13.2 Mbps (NRZ signal)
- 3. Operating voltage: 2.75 to 5.25 V
- 4.TTL and high speed C-MOS LOGIC IC compatible

### **Outline Dimensions**





Recommended drilling as viewd from the soldering face



NOTES:

Tolerance is  $\pm 0.3$ mm unless otherwise noted.

# **Absolute Maximum Ratings**

@  $T_A = 25^{\circ}C$ 

Parameter	Symbol	Rating	Unit
Supply voltage	$V_{cc}$	-0.5  to + 7.0	V
Input voltage	V <sub>in</sub>	-0.5 to Vcc +0.5	V
Operating temperature	$T_{opr}$	-20 to +70	°C
Storage temperature	$T_{stg}$	-40 to +70	°C
Soldering temperature *1	$T_{sol}$	260	°C

<sup>\*1</sup> For 5s (2 times or less)



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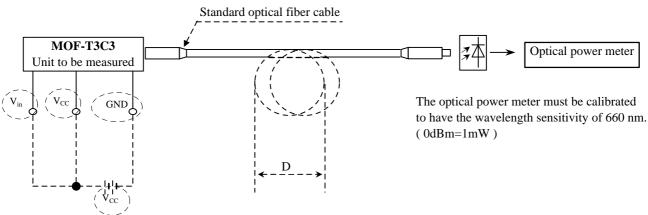
**Recommended Operating Conditions** 

<u> </u>					
Parameter	Symbol	MIN.	TYP.	MAX.	Unit
Operating supply voltage	$V_{cc}$	2.75		5.25	V
Operating transfer rate	T			13.2	Mbps

**Electro-Optical Characteristics** 

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Peak emission wavelength	$\lambda_{ m p}$		630	660	690	nm
Optical power output coupling with fiber	$P_{c}$	Refer to Fig. 1	-21	-18	-15	dBm
Dissipation current	$I_{cc}$	Refer to Fig. 2		8	13	mA
High level input voltage	$V_{iH}$	Refer to Fig. 2	2.1		$V_{cc}$	V
Low level input voltage	$V_{iL}$	Refer to Fig. 2			0.8	V
Low to High delay time	$t_{pLH}$	Refer to Fig. 3		100	180	ns
High to Low delay time	$t_{ m pHL}$	Refer to Fig. 3		100	180	ns
Pulse width distortion	$\Delta_{ m tw}$	Refer to Fig. 3	-15		+15	ns

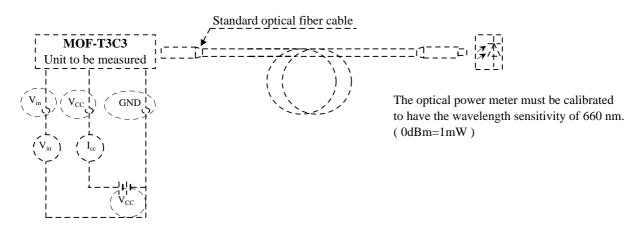
Fig. 1 Measuring Method of Optical Output Coupling with Fiber



Notes (1)Vcc=5.0V (State of operating)

(2)To bundle up the standard fiber optic cable, make it into a loop with the diameter D=10cm or more.

Fig. 2 Measuring Method of Intput Voltage and Supply Current



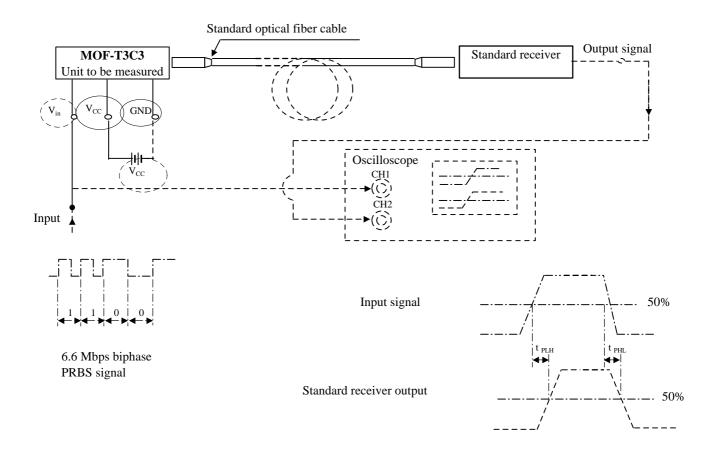
### Input conditions and judgement method

Conditions	Judgement method
V <sub>in</sub> =2.1V or more	-21dBm<=Pc<=-15dBm, Icc=13mA or less
V <sub>in</sub> =0.8V or less	Pc<=-36dBm, Icc=13mA or less

Note:  $V_{cc}$ =5.0V (State of operating)

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Fig.3 Measuring Method of Pulse Response



#### Test item

Test item	Symbol	Test condition
Low to High pulse delay time	t <sub>PLH</sub>	Refer to the above prescriptions
High to Low pulse delay time	t <sub>PHL</sub>	Refer to the above prescriptions
Pulse width distortion	$\Delta tw$	Δtw=t <sub>PHL</sub> - t <sub>PLH</sub>

Notes (1) The waveform write time shall be 4 seconds. But do not allow the waveform to be distorted by increasing the brightness too much.

- (2) Vcc=5.0 (State of operating)
- (3) The probe for the oscilloscope must be more than 1M and less than 10pF.