

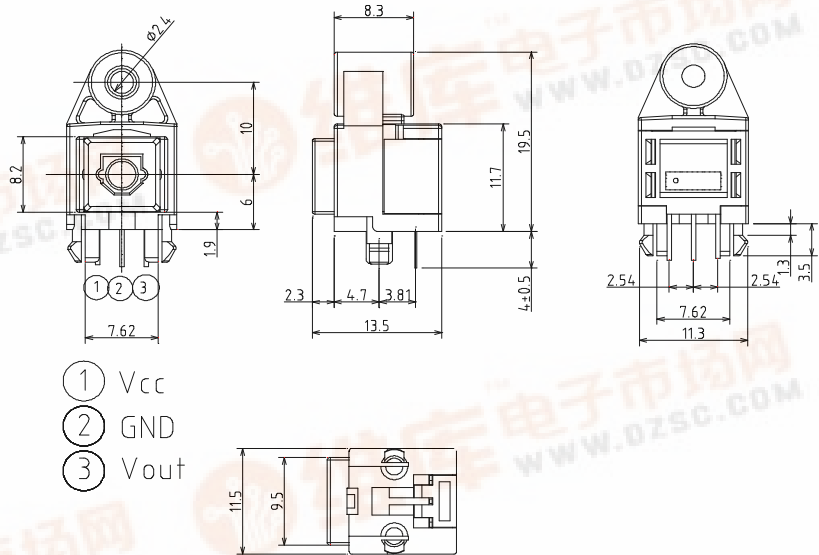
Fiber Optic Receiver

MOF-R3K3

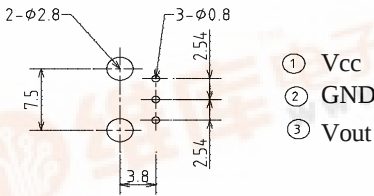
Features

- 1.Uni-directional data transmission using plastic fiber
- 2.Signal transmission speed
:MAX. 6 Mbps (NRZ signal)
- 3.Operating voltage :4.75 to 5.25 V
- 4.TTL compatible
- 5.Suitable for MOF-T3K3 Transmitter

Outline Dimensions



Recommended drilling as viewd from the soldering face



NOTES:

Tolerance is $\pm 0.3\text{mm}$ unless otherwise noted.

Absolute Maximum Ratings

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

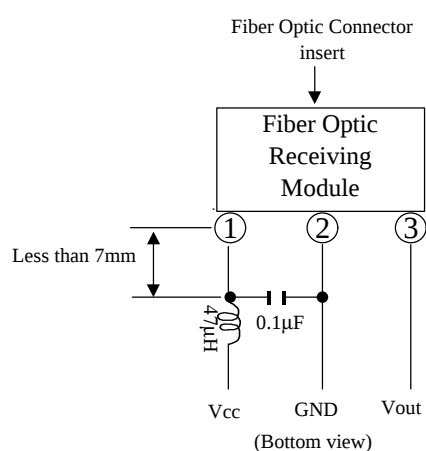
Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	-0.5 to + 7	V
High Level Output Current	I_{OH}	-1	mA
Low Level Output Current	I_{OL}	5	mA
Operating temperature	T_{opr}	-20 to +70	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-30 to +80	$^{\circ}\text{C}$
Soldering Temperature	T_{SOL}	260*	$^{\circ}\text{C}$

* For 5s (1 times or less)

Recommended Operating Conditions

Parameter	Symbol	MIN.	TYP.	MAX.	Unit
Operating supply voltage	V_{cc}	4.75	5.0	5.25	V
Operating transfer rate	T	0.1	---	6	Mbps
receiver input optical power level	P_c	-22	---	-14.5	dBm

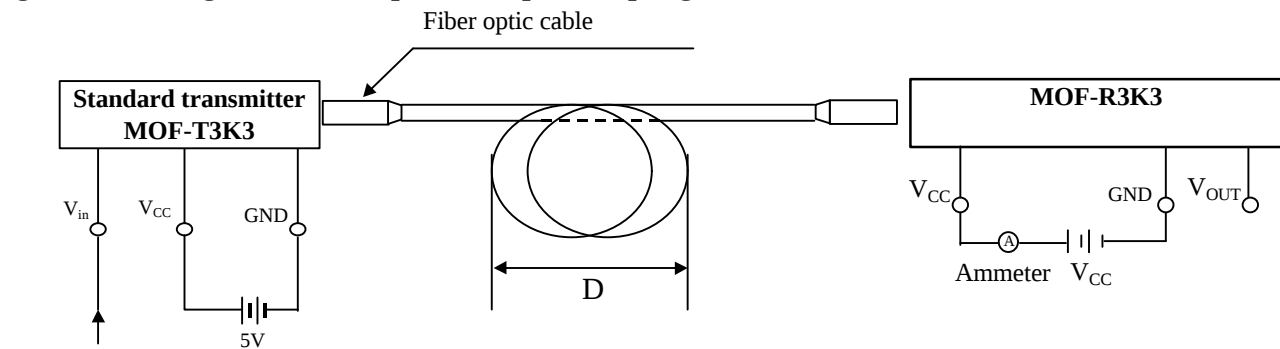
Recommended Connection Method



Electro-Optical Characteristics

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Dissipation current	I_{cc}	Refer to Fig. 1	---	20	40	mA
High level output voltage	V_{OH}	Refer to Fig. 2	2.7	4.4	---	V
Low level output voltage	V_{OL}	Refer to Fig. 2	---	0.2	0.4	V
Rise time	t_r	Refer to Fig. 2	---	20	40	ns
Fall time	t_f	Refer to Fig. 2	---	20	40	ns
Low → High delay time	t_{pLH}	Refer to Fig. 2	---	---	180	ns
High → Low delay time	t_{pHL}	Refer to Fig. 2	---	---	180	ns
Pulse width distortion	Δ_{tw}	Refer to Fig. 2	-30	---	+30	ns

Fig. 1 Measuring Method of Optical Output Coupling with Fiber

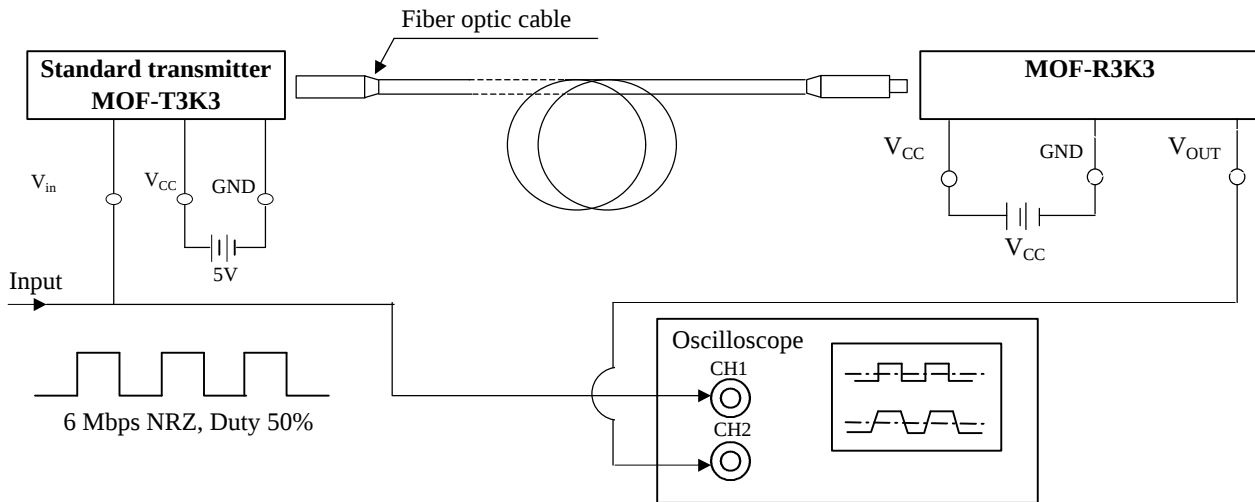


Input

6 Mbps NRZ, Duty 50% or 3 Mbps biphase mark PRBS signal

- Notes
- (1) $V_{CC}=5.0V$ (State of operating)
 - (2) To bundle up the standard fiber optic cable, make it into a loop with the diameter $D=10cm$ or more.
 - (3) $P_c = -14.5 \text{ dBm}$
 - (4) Measured on an ammeter.

Fig. 2 Measuring Method of Output Voltage and Pulse Response



Test item

Test item	Symbol
Low → High pulse delay time	t_{PLH}
High → Low pulse delay time	t_{PHL}
Rise time	t_r
Fall time	t_f
Pulse width distortion $\Delta tw = t_{PHL} - t_{PLH}$	Δtw
High level output voltage	V_{OH}
Low level output voltage	V_{OL}

