

## MTRS5900

### Features

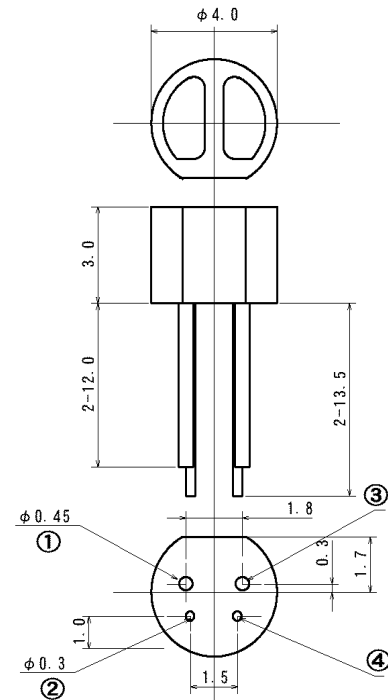
High Reliability  
Compact

### Applications

Card Reader  
Bar Code Reader  
Edge Sensing  
Money-Bill Reader

### Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I <sub>F</sub>	30	-	mA
Pulsed Forward Current	I <sub>FP</sub>	50.00	tw=10μS, T=10mS	A
Reverse Voltage	V <sub>R</sub>	4	-	V
Power Dissipation	P <sub>D</sub>	100.00	-	mW
Operating Temperature	T <sub>opr</sub>	-20 ~ +80	-	°C
Storage Temperature	T <sub>stg</sub>	-30 ~+100	-	°C
Soldering Temperature	T <sub>sol</sub>	260	for 5 sec. max	°C



- ① LED Cathode      ③ PD Cathode  
② LED Anode      ④ PD Anode

### Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	-	2.00	2.50	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =4V	-	-	10	μA
Light Current	I <sub>L</sub>	I <sub>F</sub> =20mA, V <sub>R</sub> =10V, d=1mm*	-	.30	-	μA
Dark Current	I <sub>D</sub>	V <sub>R</sub> =10V	-	-	100	μA
Peak Sensitivity Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	-	590	-	nm
Spectral Line Half Width	Δλ	I <sub>F</sub> =20mA	-	32	-	nm
Cross-Talk	I <sub>x</sub>	I <sub>F</sub> =20mA, V <sub>ce</sub> =10V	-	-	10	%
Rise Time	T <sub>r</sub>	V <sub>R</sub> =10V, I <sub>F</sub> =20mA, R <sub>L</sub> =1KΩ	-	1000.00	-	ns
Fall Time	T <sub>f</sub>	V <sub>R</sub> =10V, I <sub>F</sub> =20mA, R <sub>L</sub> =1KΩ	-	1000.00	-	ns

\* Measured by reflecting with Aluminum evaporated mirror (d=1.00mm)

**MTRS5900 Graphs**

