

### Peak Emission Wavelength: 1070nm

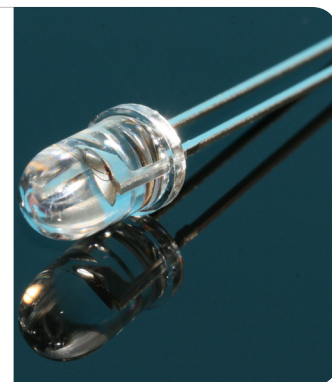
The MTE7110N5 consists of a 1070nm high output infrared die in a water-clear 5mm plastic molded dome shaped package. Custom package solutions and sorting are available.

#### FEATURES

- > High Output Power
- > Narrow Beam Angle
- > High Reliability

#### APPLICATIONS

- > Optical Switches & Sensors
- > Fiber Optical Communication
- > Bar-code Reader



### Absolute Maximum Ratings (Ta=25°C)

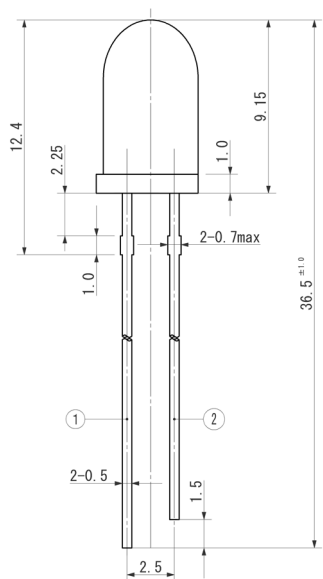


ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	1	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	140	mW
Operating Temperature Range	To <sub>opr</sub>	-20 ~ +80	°C
Storage Temperature Range	T <sub>stg</sub>	-30 ~ +100	°C
Junction Temperature	T <sub>j</sub>	100	°C
Lead Soldering Temperature*2	T <sub>ls</sub>	260	°C

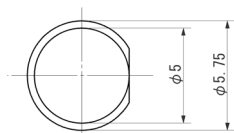
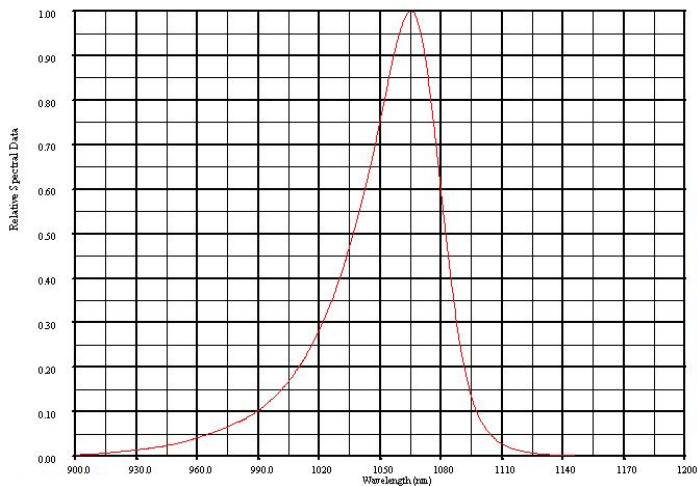
\*1: Tw=10μsec, T=10msec. \*2: Time 5Sec max, Position: Up to 3mm from the body.

### Electrical & Optical Characteristics (Ta = 25°C)

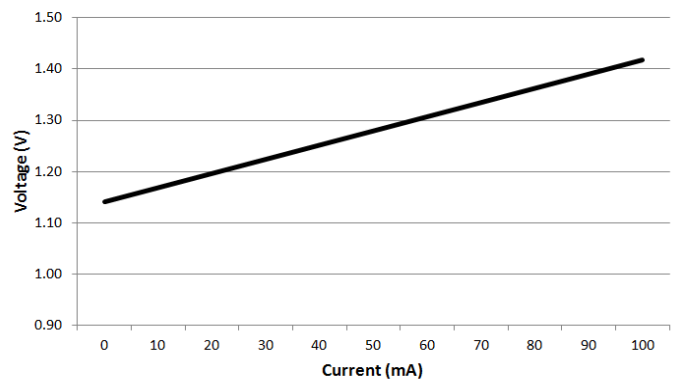
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	--	12	--	mW
Power Output	PO	IF=50mA	--	30	--	mW
Forward Voltage	VF	IF=20mA	--	1.25	--	V
Forward Voltage	VF	IF=50mA	--	1.30	--	V
Reverse Current	IR	VR=5V	--	--	100	μA
Peak Emission Wavelength	λ <sub>p</sub>	IF=50mA	--	1070	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	45	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	±5	--	deg



**SPECTRAL OUTPUT**



**Forward I-V Characteristics**



Unit: mm, Tolerance:  $\pm 0.2$

