

# Photovoltaic Isolator

## Description

The **LTP1G4** is a miniature SOP package photovoltaic isolator which output is controlled by a highly efficient GaAlAs infrared LED for a optical couple to drive a series connected photo diode array which is suitable for MOS FET gate.

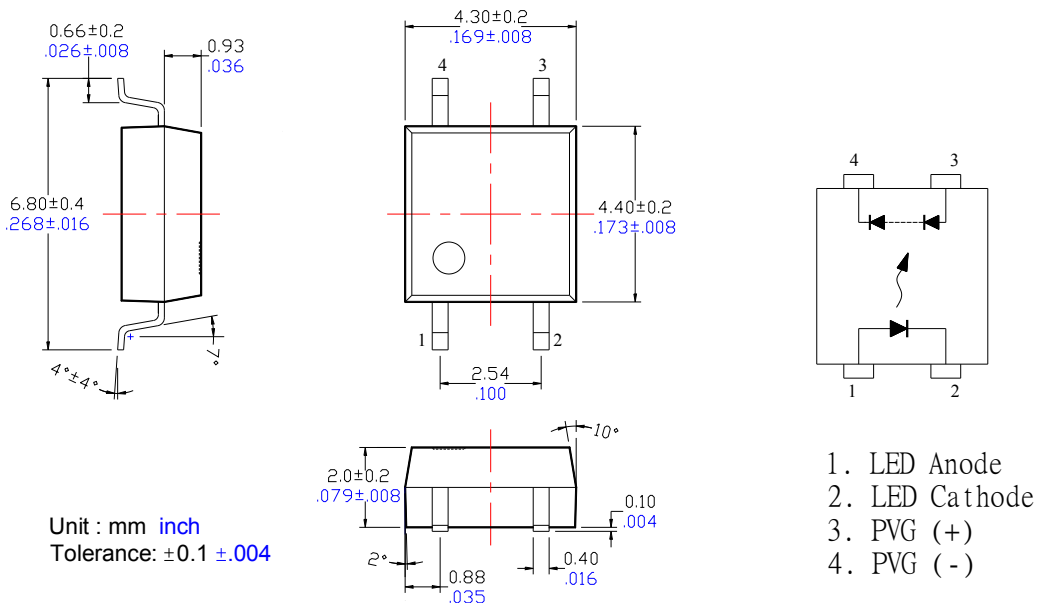
## Features

- SOP package 4 Pin type (4.4×4.3×2.0mm / .173×.169×.083inch)
- I/O isolation Voltage: 2500Vrms
- Solid-State Reliability

## Applications

- MOS-FET driver
- Power supply (Vcc) for electronic circuits

## Outline Dimensions



## Photovoltaic Specifications

**Part Name: LTP-1G4**

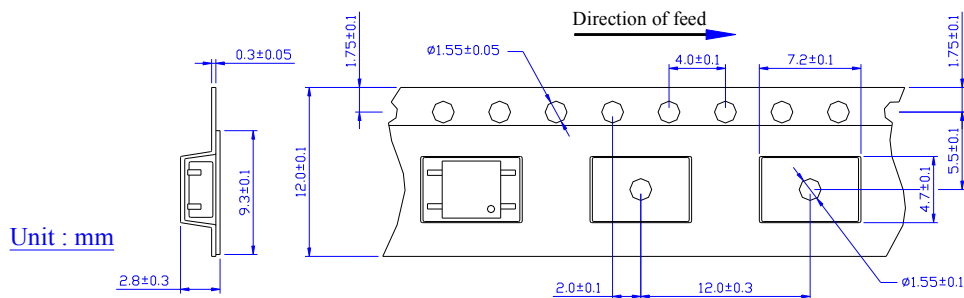
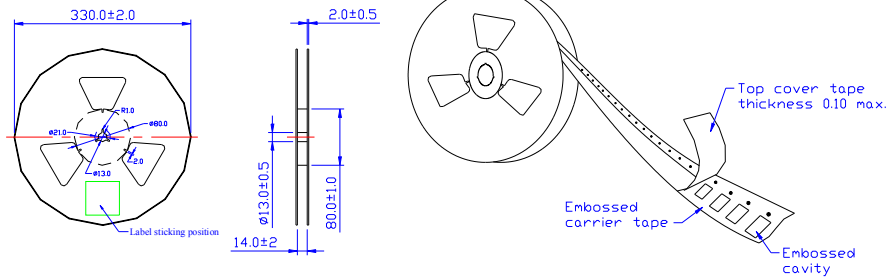
### Absolute Maximum Ratings (Ambient Temperature: 25°C)

Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I <sub>F</sub>	50	mA	
	LED Reverse Voltage	V <sub>R</sub>	5	V	
	Peak Forward Current	I <sub>FP</sub>	1000	mA	
	Power Dissipation	P <sub>O</sub>	75	mW	
Output	Maximum Forward Voltage	V	8.0	V <sub>(DC)</sub>	I <sub>F</sub> =10uA
	Maximum Reverse Current	I <sub>R</sub>	10	uA <sub>(DC)</sub>	V <sub>R</sub> =10V
I/O Isolation Voltage		V <sub>I/O</sub>	2500	V <sub>rms</sub>	RH=60%, 1min
Operating Temperature		T <sub>Opr</sub>	-40 to +85	°C	
Storage Temperature		T <sub>Stg</sub>	-40 to +125	°C	
Pin Soldering Temperature		T <sub>Sol</sub>	260	°C	10 sec max.

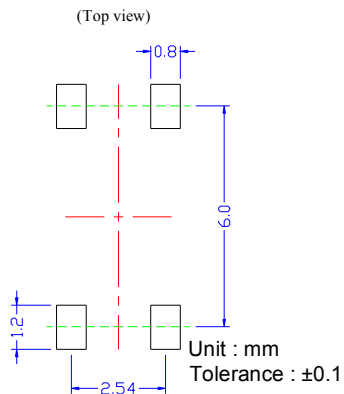
### Electrical Specifications (Ambient Temperature: 25°C)

Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V <sub>F</sub>		1.2	1.4	V	I <sub>F</sub> =10mA
	LED Reverse Current	I <sub>R</sub>			10	uA	V <sub>R</sub> =5V
	Operation LED Current	I <sub>Fon</sub>		0.5	5.0	mA	
	Recovery LED Current	I <sub>Off</sub>	0.2		0.5	mA	
Output (Coupled)	Minimum Open Circuit Voltage	V <sub>O</sub>	5.0	8.3		V	I <sub>F</sub> =10mA, R <sub>L</sub> =10MΩ
	Minimum Short Circuit Current	I <sub>S</sub>	5.0	14		uA	I <sub>F</sub> =10mA, R <sub>L</sub> =100Ω
	Turn-on Time	T <sub>on</sub>		0.8		ms	I <sub>F</sub> =10mA, C <sub>L</sub> =1000pF
	Turn-off Time	T <sub>off</sub>		0.1		ms	
	I/O Capacitance	C <sub>I/O</sub>		1.0		pF	f=1MHz
	I/O Isolation Resistance	R <sub>I/O</sub>	10 <sup>10</sup>			Ω	DC500V

## Taping Specifications for Surface Mount Devices

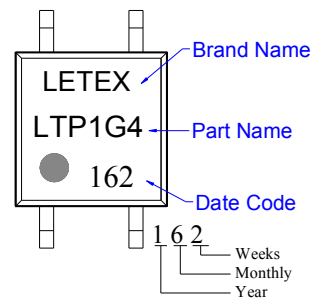


### Recommended Mounting Pad



### Marking

(Each photo MOS Relay shall be marked with the following information)



- Note:
1. There shall be leader of 230 mm minimum which may consist of carrier and or cover tape follower by a minimum of 160 mm of carrier tape sealed with cover tape.
  2. There shall be a minimum of 160 mm of empty component pockets sealed with cover tape.
  3. Devices are pockets in accordance with EIA standard EIA-481-A and specifications given above.
  4. Packaging: 2,000pcs per reel, 2 reel per box, 5 boxes per carton.

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