

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.

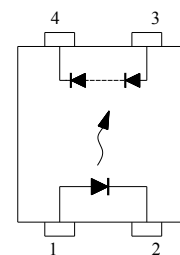
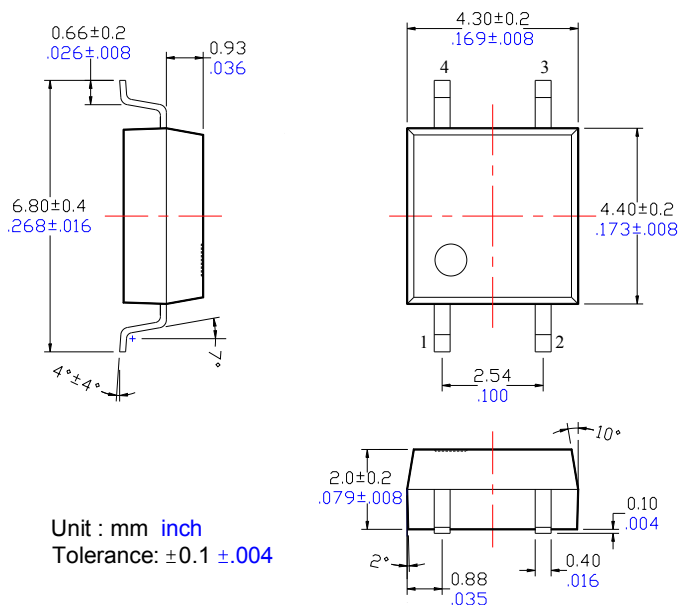
Features

- 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



1. LED Anode
2. LED Cathode
3. PVG (+)
4. PVG (-)

Photovoltaic Specifications

Part Name: LTP-1G4

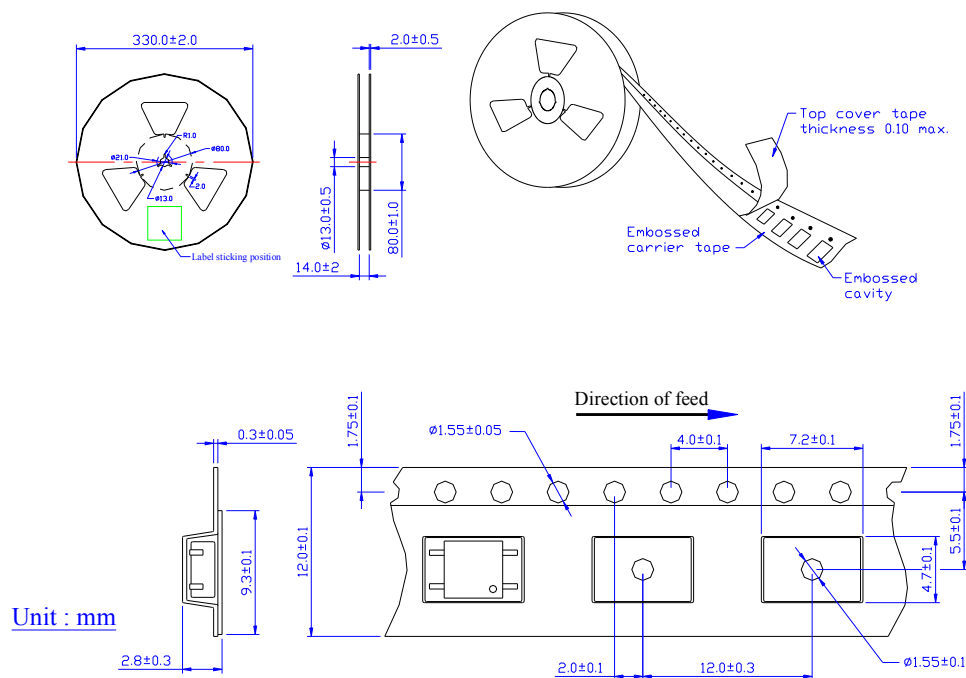
Absolute Maximum Ratings (Ambient Temperature: 25°C)

Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I _F	2~50	mA	
	LED Reverse Voltage	V _R	5	V	
	Peak Forward Current	I _{FP}	1.0	A	
	Power Dissipation	P _O	75	mA	
Output	Maximum Forward Voltage	V	8.0	V _(DC)	I _F =10uA
	Maximum Reverse Current	I _R	10	uA _(DC)	V _R =10V
I/O Isolation Voltage		V _{I/O}	2500	V _{rms}	RH=60%, 1min
Operating Temperature		T _{Opr}	-40 to +85	°C	
Storage Temperature		T _{Stg}	-40 to +125	°C	
Pin Soldering Temperature		T _{Sol}	260	°C	10 sec max.

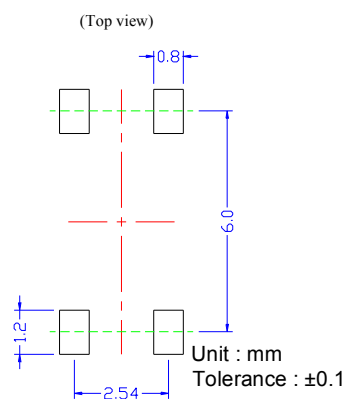
Electrical Specifications (Ambient Temperature: 25°C)

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

Taping Specifications for Surface Mount Devices

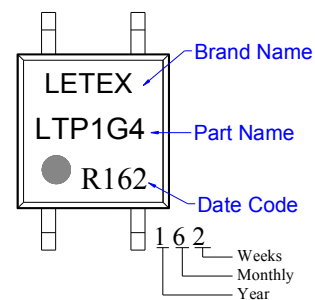


Recommended Mounting Pad



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.