

## Features

- \* SOP package 4 Pin type in miniature design  
 (4.4×4.3×2.1mm / .173×.169×.083inch)
- \* Low driver power requirements  
 (TTL/CMOS Compatible)
- \* No moving parts
- \* High reliability
- \* Arc-Free with no snubbing circuits
- \* 1500Vrms Input/Output isolation
- \* Tape & Reel version available

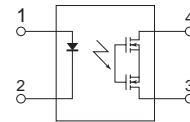
## Applications

- \* Telecommunications (PC, Electronic notepad)
- \* Measuring and Testing equipment
- \* Industrial control
- \* Security equipments
- \* High speed inspection machine

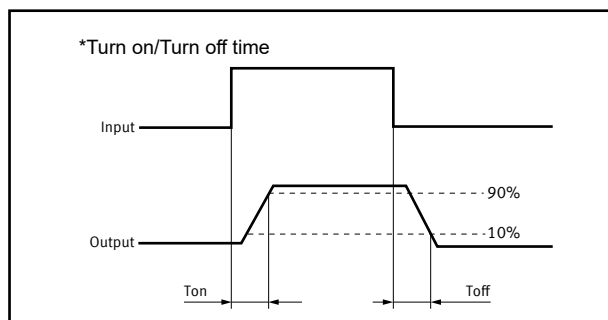


SOP-4

(Unit: mm)



1. LED Anode
2. LED Cathode
- 3, 4. Drain (MOS FET)



## TYPES

Category	Output rating*1		Part No.	Packing quantity
	Load voltage	Load current		
AC/DC	350 V	0.13A	SOP GAQY210S	Tape and reel 1-reel: 2,000 pcs.

Absolute Maximum Ratings (Ambient Temperature: 25°C)

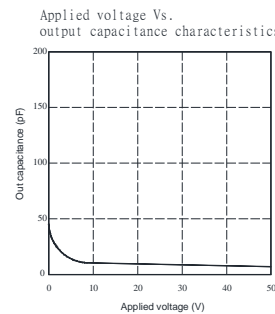
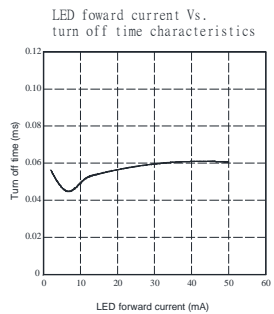
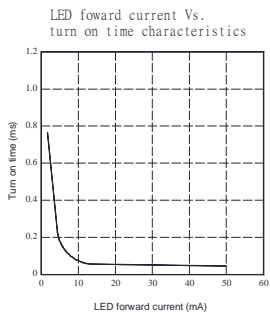
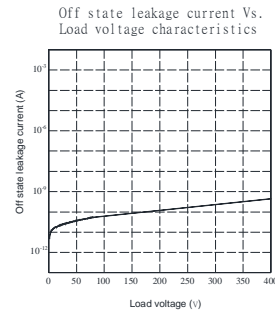
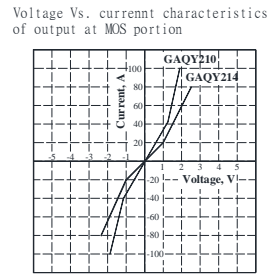
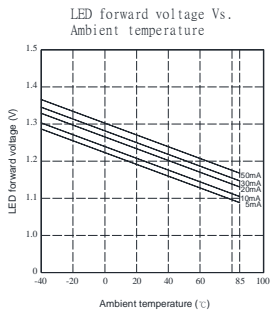
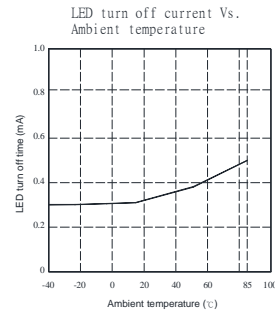
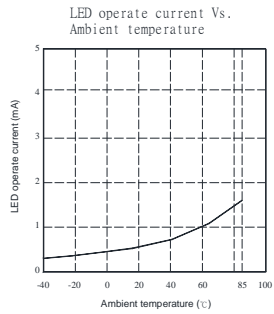
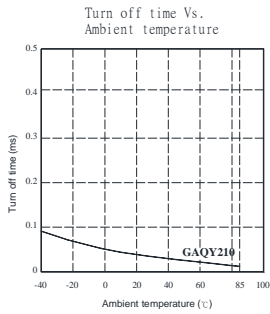
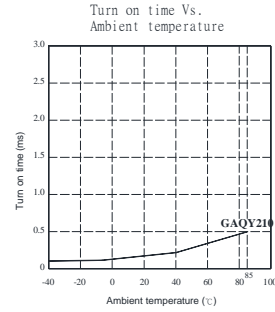
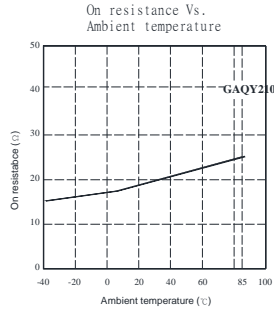
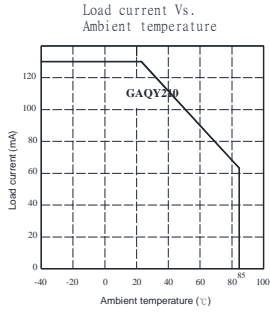
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I <sub>F</sub>	50	mA	
	Peak LED Current	I <sub>FP</sub>	1000	mA	f=100Hz, duty=1%
	LED Reverse Voltage	V <sub>R</sub>	5	V	
	Input Power Dissipation	P <sub>In</sub>	75	mW	
Output	Load Voltage	V <sub>L</sub>	350	V(AC peak or DC)	
	Load Current	I <sub>L</sub>	130	mA	
	Peak Load Current	I <sub>Peak</sub>	0.6	A	100ms(1 pulse)
	Output Power Dissipation	P <sub>out</sub>	300	mW	
Total Power Dissipation		P <sub>T</sub>	350	mW	
I/O Breakdown 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 +100	°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
	Operation LED Current	I <sub>F On</sub>		0.5	2.0	mA	
	Recovery LED Current	I <sub>F Off</sub>		0.35	0.5	mA	
	Recovery LED Voltage	V <sub>F Off</sub>	0.7			V	
Output	On-Resistance	R <sub>On</sub>		14	20	Ω	I <sub>F</sub> =5mA, I <sub>L</sub> =100mA, Time to flow is within 1 sec.
	Off-State Leakage Current	I <sub>Leak</sub>			0.01	uA	V <sub>L</sub> =Rating
	Output Capacitance	C <sub>out</sub>		45		pF	V <sub>L</sub> =0, f=1MHz
Transmis sion	Turn-On Time	T <sub>On</sub>		0.08	0.15	ms	I <sub>F</sub> =5mA, I <sub>L</sub> =100mA,
	Turn-Off Time	T <sub>Off</sub>		0.03	0.20	ms	
Coupled	I/O Isolation Resistance	R <sub>I/O</sub>	10 <sup>10</sup>			Ω	DC500V
	I/O Capacitance	C <sub>I/O</sub>		0.8	1.5	pF	f=1MHz

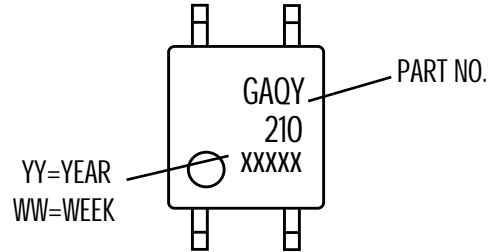
Please obey the following conditions to ensure proper device operation and resetting. Input LED current (Recommended value): I<sub>F</sub> ≥5mA and ≤30mA.  
Examples of resistance value to control LED forward current (I<sub>F</sub>=5mA, INPUT VOLTAGE="E", RESISTORS="R")  
"E"=3.3V, "R"=330Ω; "E"=5V, "R"=640Ω; "E"=12V, "R"=1.9KΩ; "E"=15V, "R"=2.5KΩ; "E"=24V, "R"=4.1KΩ;

## Reference Data

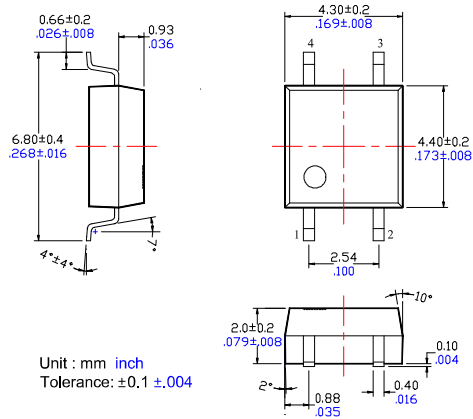


## Dimensions

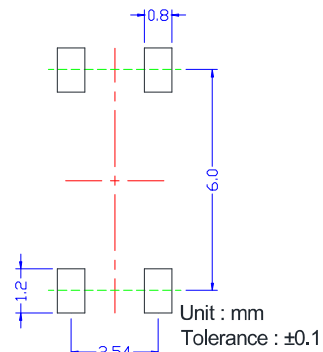
### 4-SOP



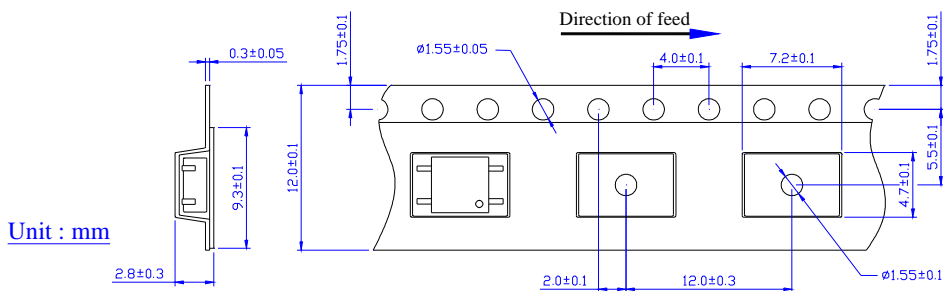
Surface mount terminal type



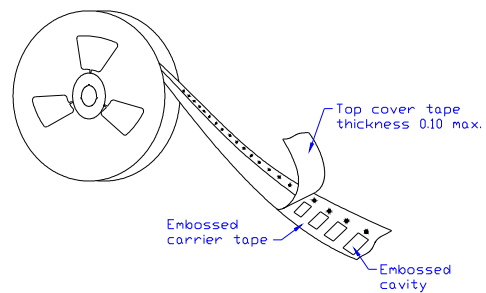
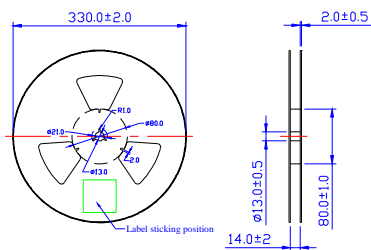
Recommended mounting pad (Top view)



Tape dimensions



Dimensions of tape reel



单击下面可查看定价，库存，交付和生命周期等信息

[>>SUPSiC\(国晶微\)](#)