

## 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

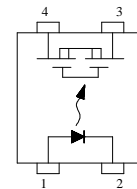
## Applications

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

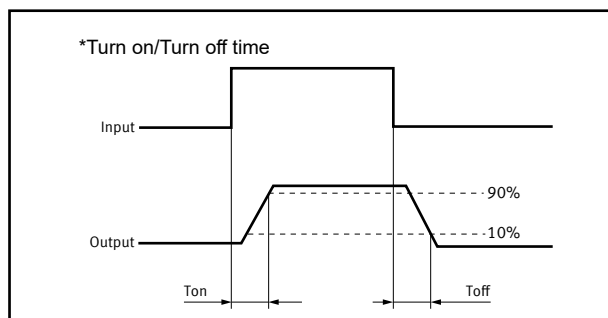


SOP-4

(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	SOP	Tape and reel
AC/DC	400 V	0.1A	GAQY210S	1-reel: 1,000 pcs.

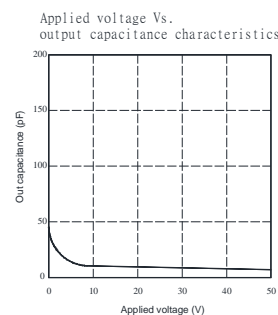
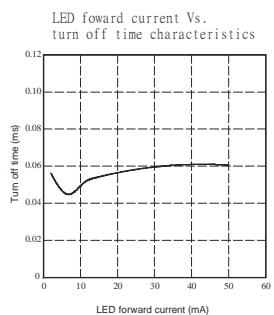
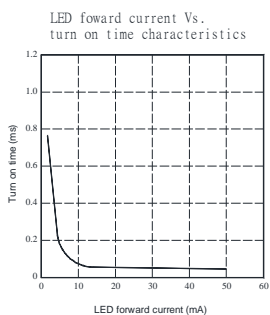
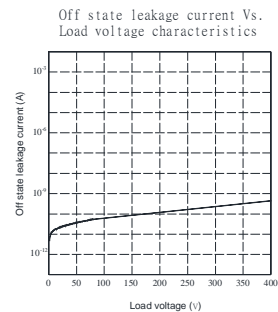
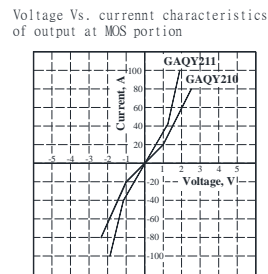
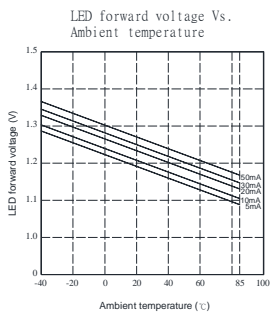
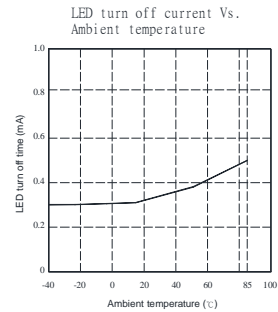
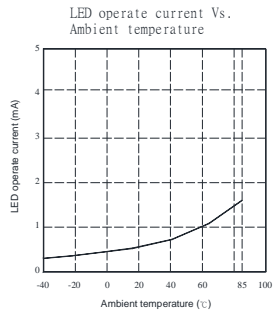
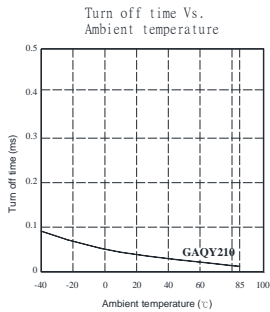
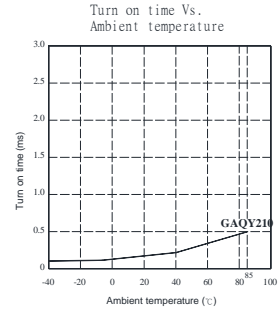
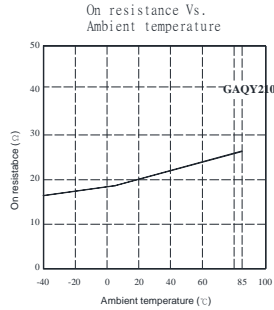
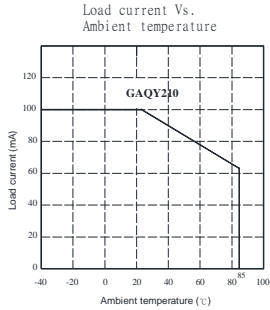
**Absolute Maximum Ratings (Ambient Temperature: 25°C)**

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>	400	V(AC peak or DC)	
	Load Current	I <sub>L</sub>	100	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>	1500	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)**

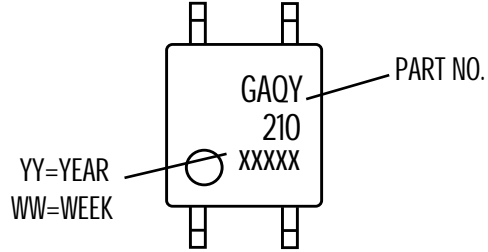
Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V <sub>F</sub>		1.2	1.4	V	I <sub>F</sub> =10mA
	Operation LED Current	I <sub>F On</sub>		0.5	1.0	mA	
	Recovery LED Current	I <sub>F Off</sub>		0.35	0.5	mA	
	Recovery LED Voltage	V <sub>F Off</sub>	0.7			V	
Output	On-Resistance	R <sub>On</sub>		20	24	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>			1	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>		0.23	0.5	ms	I <sub>F</sub> =5mA, I <sub>L</sub> =100mA,
	Turn-Off Time	T <sub>of</sub>		0.03	0.2	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

## Reference Data

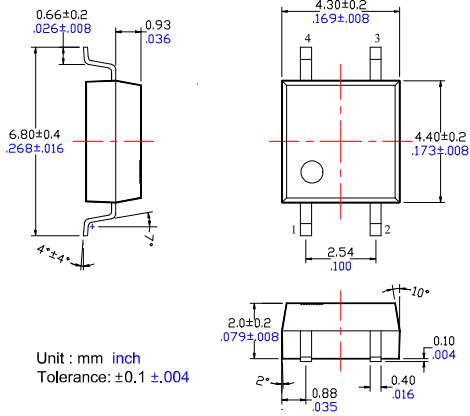


## Dimensions

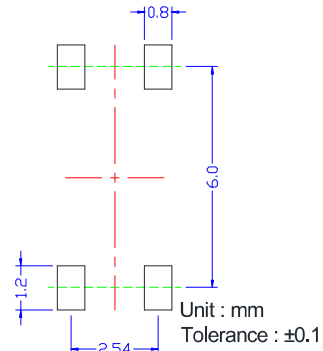
### 4-SOP



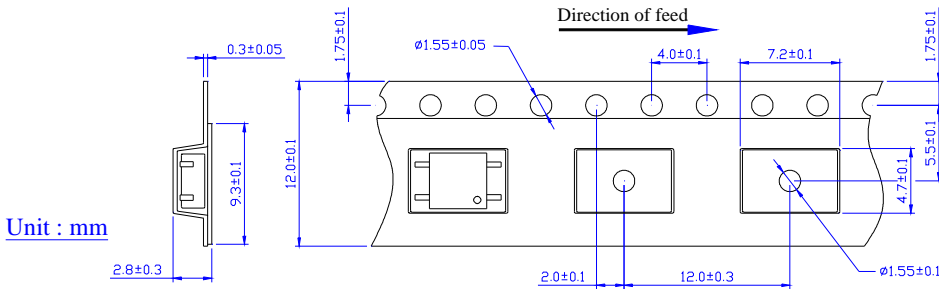
Surface mount terminal type



Recommended mounting pad (Top view)



Tape dimensions



Dimensions of tape reel

