

**Features**

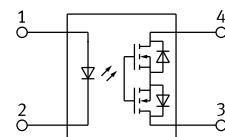
- Low-level off state leakage current of max. 1  $\mu$ A
- Low driver power requirements (TTL/CMOS Compatible)
- High reliability
- No moving parts
- 1500Vrms Input/Output isolation
- Arc-Free with no snubbing circuits
- SOP package 4 Pin type in miniature design (4.4×4.3×2.1mm /.173×.169×.083inch)
- The optically coupled input is controlled by a highly efficient GaAlAs infrared LED and MOS FETs on the output side.

**Applications**

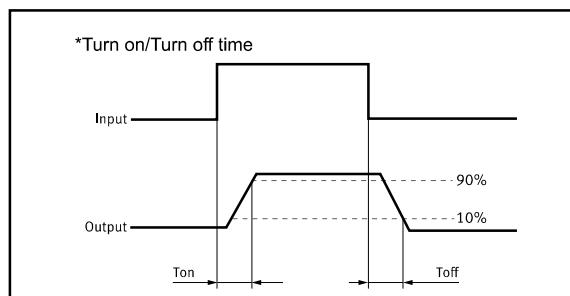
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine



SOP-4



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

**TYPES**

Category	Output rating <sup>*1</sup>		Part No.	Packing quantity
	Load voltage	Load current		
AC/DC	60 V	0.5A	SOP-4 GAQY212GS	Tape and reel 1-reel: 1,000 pcs.

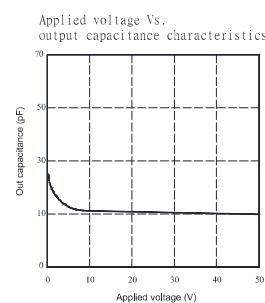
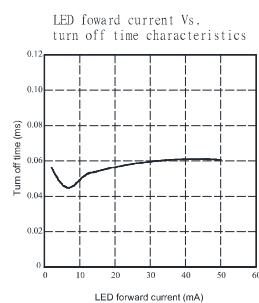
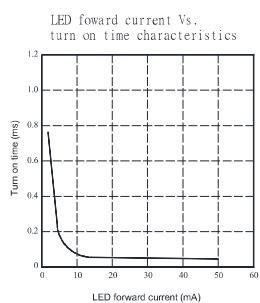
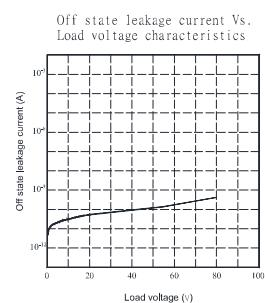
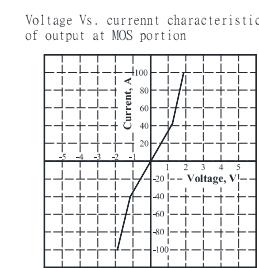
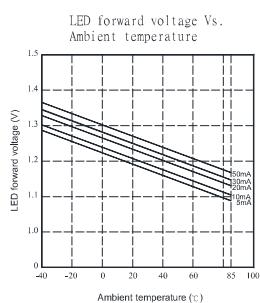
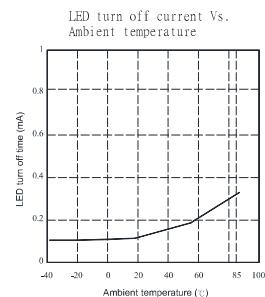
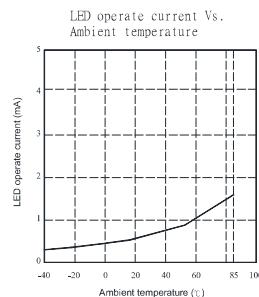
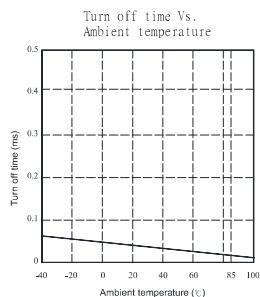
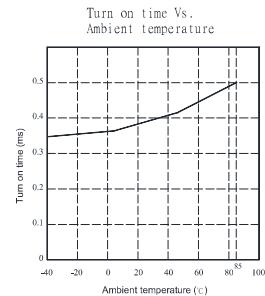
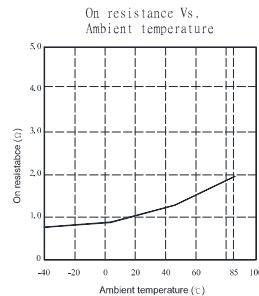
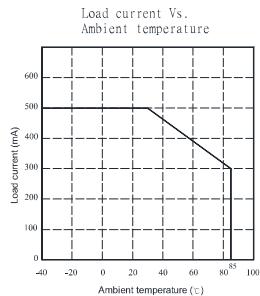
## Absolute Maximum Ratings (Ambient Temperature: 25°C)

Item	Symbol	Value	Units	Note
Input	Continuous LED Current	I <sub>F</sub>	50	mA
	Peak LED Current	I <sub>FP</sub>	1000	mA
	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>	60	V(AC peak or DC)
	Load Current	I <sub>L</sub>	500	mA
	Peak Load Current	I <sub>Peak</sub>	1.5	A
	Output Power Dissipation	P <sub>out</sub>	450	mW
Total Power Dissipation		P <sub>T</sub>	500	mW
I/O Breakdown Voltage	V <sub>I/O</sub>	1500	Vrms	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)

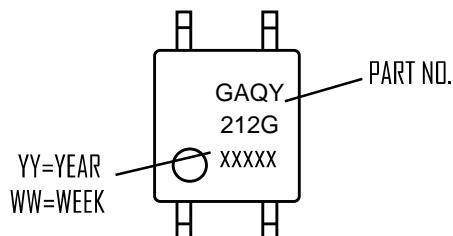
Item	Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V <sub>F</sub>		1.2	V	I <sub>F</sub> =10mA
	Operation LED Current	I <sub>Fon</sub>		0.8	mA	
	Recovery LED Current	I <sub>off</sub>		0.35	mA	
	Recovery LED Voltage	V <sub>Foff</sub>	0.7		V	
Output	On-Resistance	R <sub>on</sub>		0.8	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>		1.0	uA	V <sub>L</sub> =Rating
	Output Capacitance	C <sub>out</sub>		28	pF	V <sub>L</sub> =0, f=1MHz
Transmission	Turn-On Time	T <sub>on</sub>		0.35	ms	I <sub>F</sub> =5mA, I <sub>L</sub> =100mA,
	Turn-Off Time	T <sub>off</sub>		0.1	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

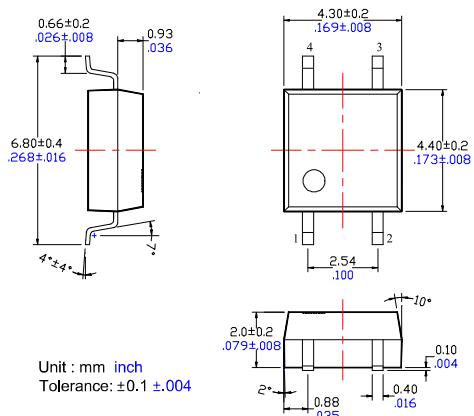


### Dimensions

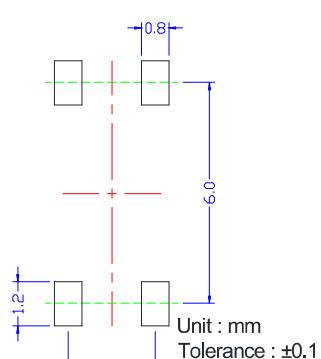
**4-SOP**



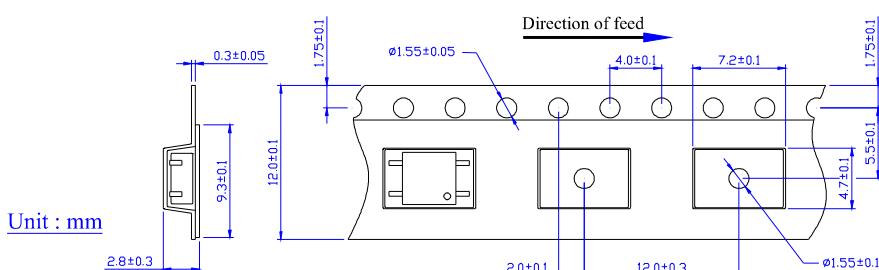
Surface mount terminal type



Recommended mounting pad (Top view)



Tape dimensions



Dimensions of tape reel

