

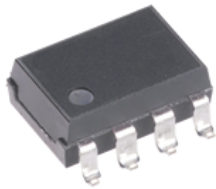


## Features

- Low driver power requirements (TTL/CMOS Compatible)
- High reliability
- Arc-Free with no snubbing circuits
- 3750/5000Vrms Input/Output isolation
- Tape & Reel version available

## Applications

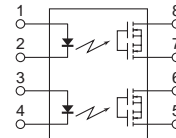
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine



SMD-8

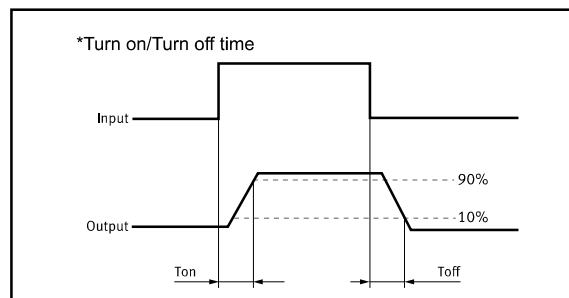


DIP-8



1,3. LED Anode  
2,4. LED Cathode  
5,6. Drain (MOS FET)  
7,8. Drain (MOS FET)

(Unit: mm)



## TYPES

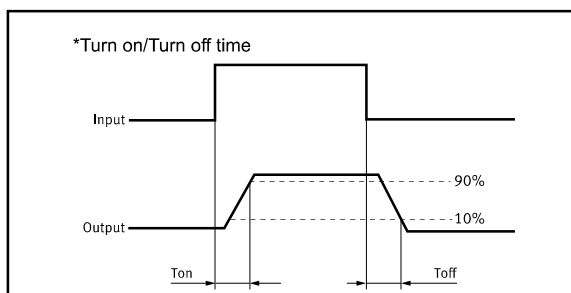
Category	Output rating		Part No.	Package	Packing quantity
	Load voltage	Load current			Tape and reel
AC/DC	60V	500mA	GAQW212GE	DIP-8	25pcs/Tube
			GAQW212GEH	SMD-8	1000pcs/1reel

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

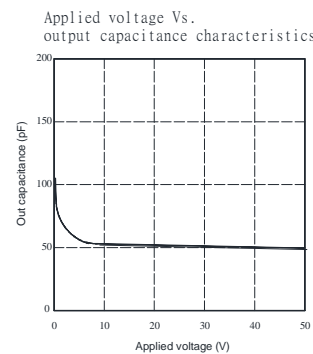
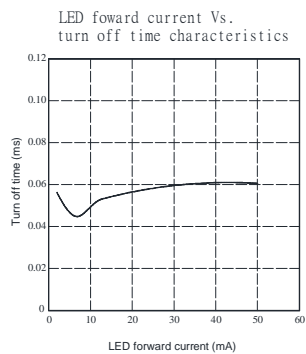
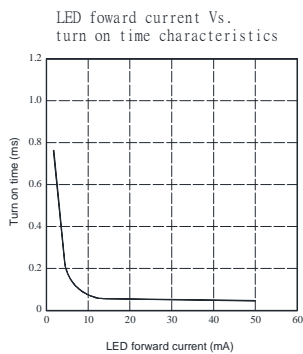
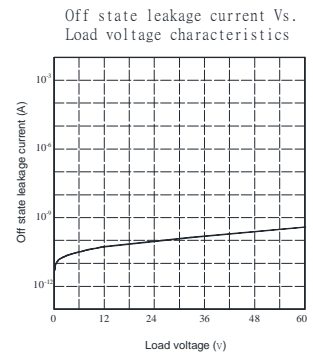
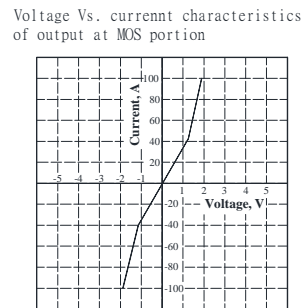
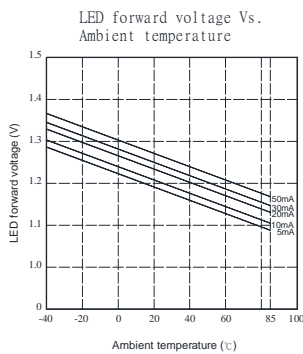
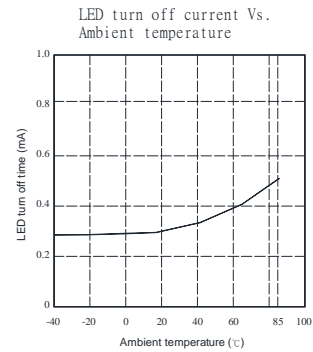
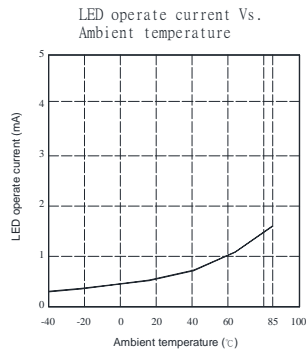
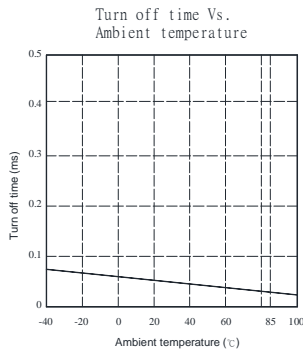
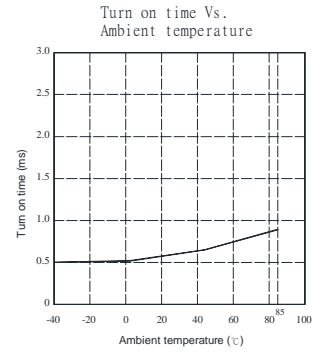
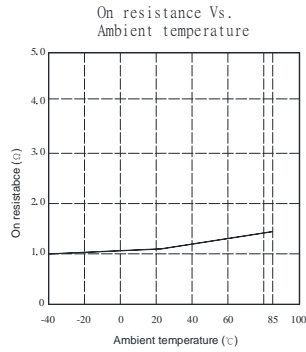
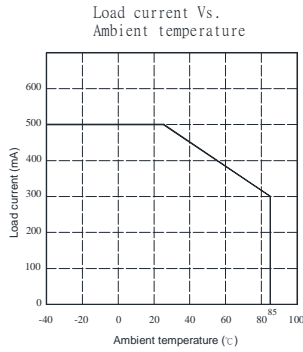
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	$I_F$	50	mA	
	Peak LED Current	$I_{FP}$	1000	mA	f=100Hz, duty=1%
	LED Reverse Voltage	$V_R$	5	V	
	Input Power Dissipation	$P_{in}$	75	mW	
Output	Load Voltage	$V_L$	60	V(AC peak or DC)	
	Load Current	$I_L$	500	mA	
	Peak Load Current	$I_{Peak}$	1.0	A	100ms(1 pulse)
	Output Power Dissipation	$P_{out}$	450	mW	
Total Power Dissipation		$P_T$	500	mW	
I/O Breakdown Voltage		$V_{IO}$	3750	Vrms	RH=60%, 1min
I/O Breakdown Voltage(Suffix-V)		$V_{IO}$	5000	Vrms	RH=60%, 1min
Operating Temperature		$T_{opr}$	-40 to +85	°C	
Storage Temperature		$T_{stg}$	-40 to +100	°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	1.5	V	$I_F=10mA$
	Operation LED Current	$I_{F on}$		0.5	5.0	mA	
	Recovery LED Current	$I_{F off}$		0.35	0.5	mA	
	Recovery LED Voltage	$V_{F off}$	0.7			V	
Output	On-Resistance	$R_{on}$		1.0	1.4	$\Omega$	$I_F=10mA, I_L=100mA$ , Time to flow is within 1 sec.
	Off-State Leakage Current	$I_{Leak}$			1.0	$\mu A$	$V_L=Rating$
	Output Capacitance	$C_{out}$		115		pF	$V_L=0, f=1MHz$
Transmission	Turn-On Time	$T_{on}$		0.5	0.8	ms	$I_F=10mA, I_L=100mA$ ,
	Turn-Off Time	$T_{off}$		0.35	0.5	ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	$10^{10}$			$\Omega$	DC500V
	I/O Capacitance	$C_{I/O}$		0.8	1.5	pF	f=1MHz



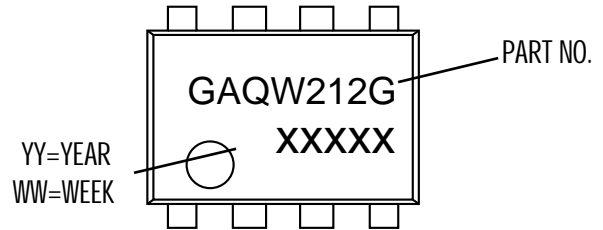
### Reference Data



## 8-DIP

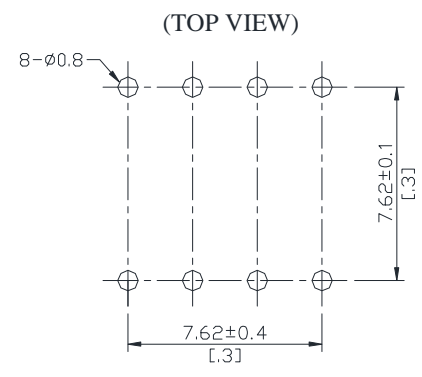
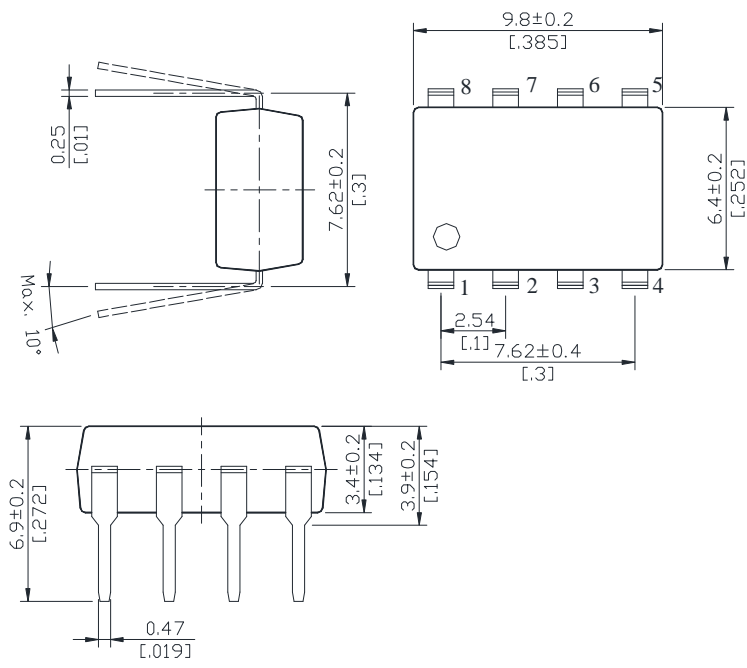
### Dimensions

mm inch



### Through hole terminal type

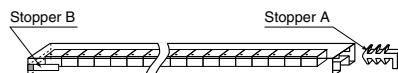
### PC board pattern



Unit : mm inch  
 Tolerance : +0.2 +.007

### DIP type

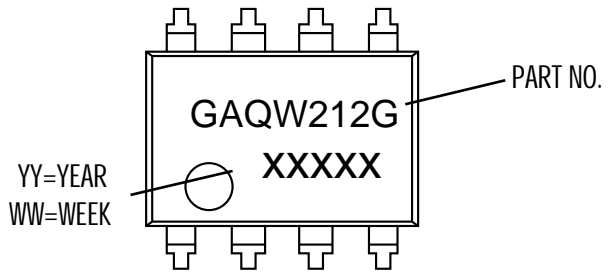
Devices are packaged in a tube so that pin No. 1 is on the stopper B side. Observe correct orientation when mounting them on PC boards.



## 8-SMD

## Dimensions

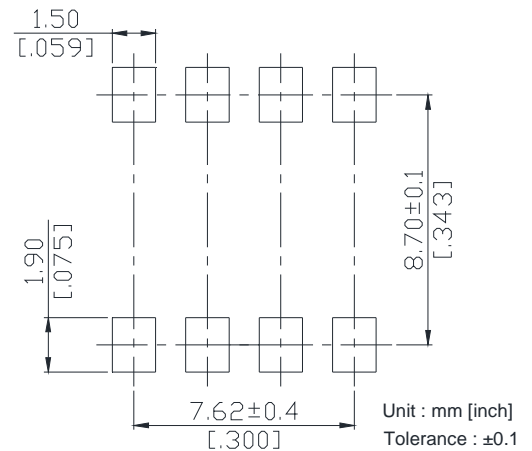
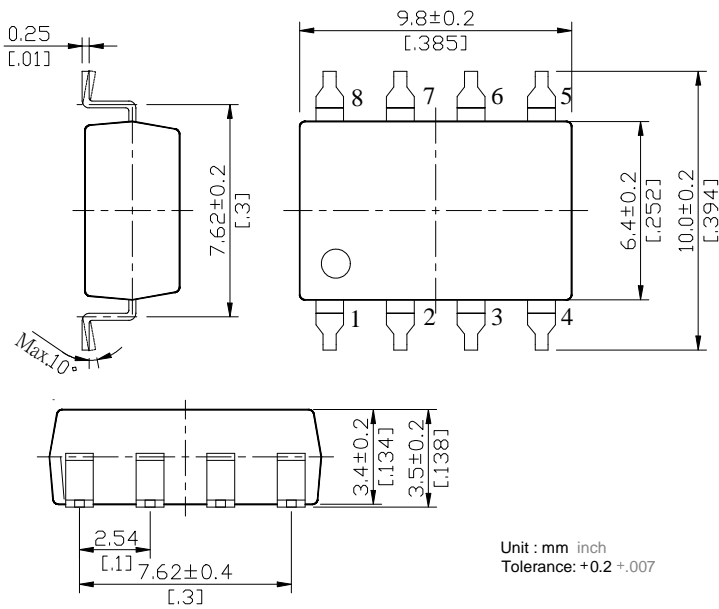
mm inch



Surface mount terminal type

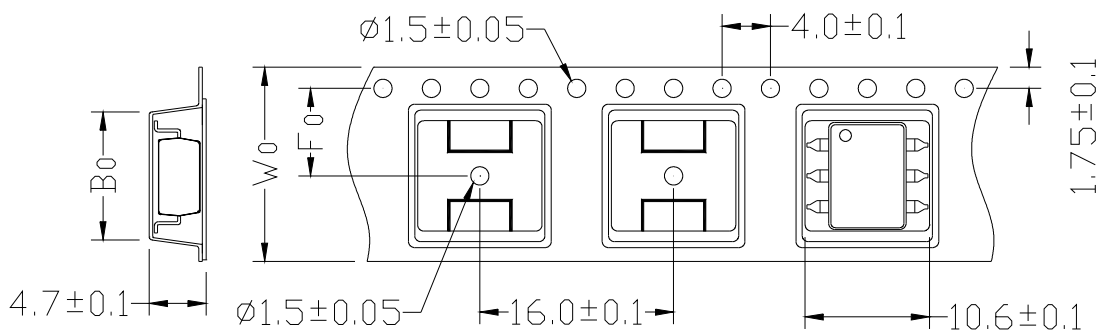
PC board pattern

(Top view)



Tape dimensions

Direction of feed



Dimensions of tape reel

