

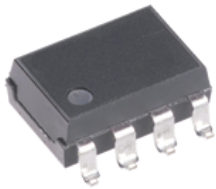


### Features

- Low driver power requirements (TTL/CMOS Compatible)
- No moving parts
- High reliability
- Arc-Free with no snubbing circuits
- 3750Vrms Input/Output isolation

### Applications

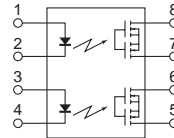
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine



SMD-8

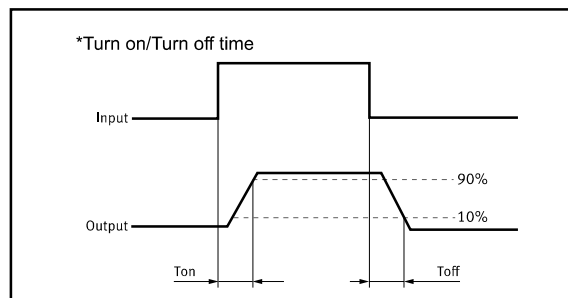


DIP-8



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

(Unit: mm)



### TYPES

Category	Output rating		Package	Part No.	Packing quantity
	Load voltage	Load current			
AC/DC	60V	1.1A	DIP8	GAQW212G1E	50pcs/tube
			SMD8	GAQW212G1EH	1000pcs/1reel

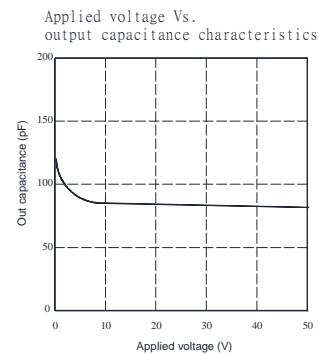
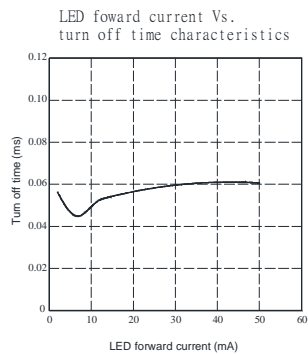
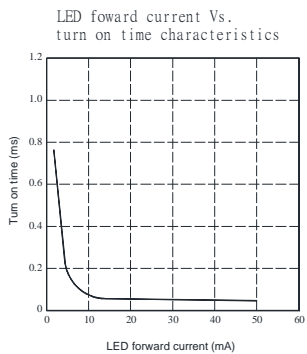
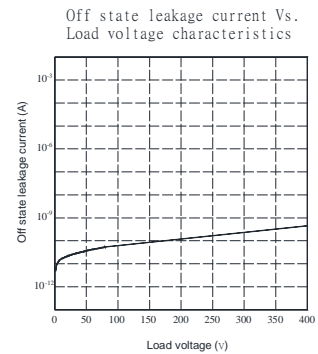
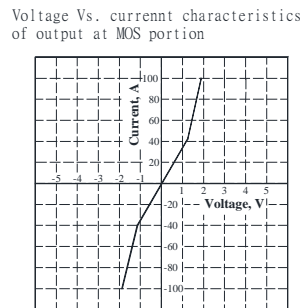
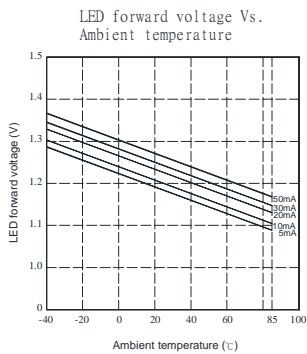
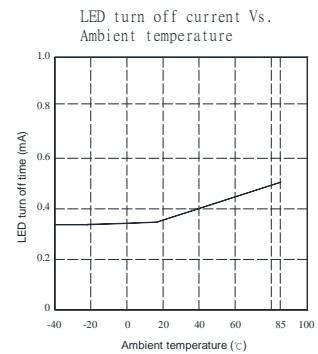
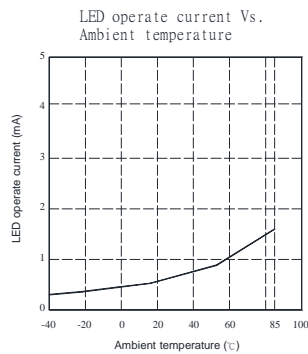
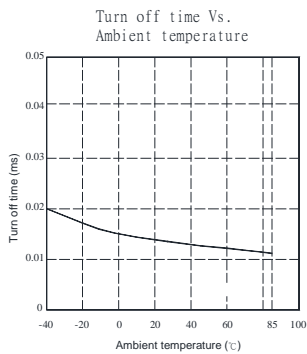
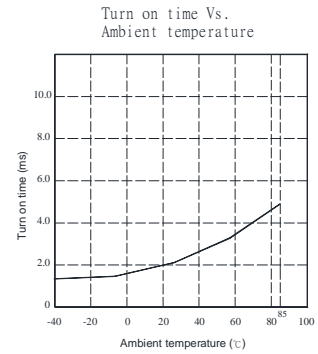
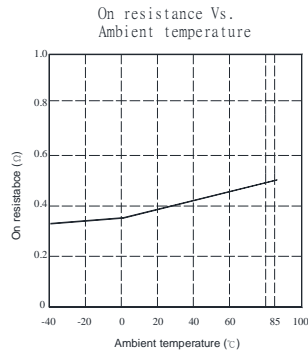
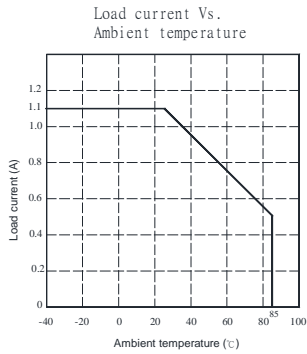
### Absolute Maximum Ratings (Ambient Temperature: 25 °C)

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	$I_L$	1.1	A	
	Peak Load Current	$I_{Peak}$	2.5	A	100ms(1 pulse)
	Output Power Dissipation	$P_{out}$	450	mW	
Total Power Dissipation		$P_T$	500	mW	
I/O Breakdown Voltage		$V_{I/O}$	3750	V <sub>rms</sub>	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	1.4	V	$I_F=10mA$
	Operation LED Current	$I_{F On}$		0.5	3.0	mA	
	Recovery LED Current	$I_{F Off}$		0.35	0.5	mA	
	Recovery LED Voltage	$V_{F Off}$	0.5			V	
Output	On-Resistance	$R_{On}$		0.27	0.7	Ω	$I_F=5mA, I_L=100mA$ , Time to flow is within 1 sec.
	Off-State Leakage Current	$I_{Leak}$			1	uA	$V_L=Rating$
	Output Capacitance	$C_{Out}$		115		pF	$V_L=0, f=1MHz$
Transmission	Turn-On Time	$T_{On}$		1.5	5.0	ms	$I_F=5mA, I_L=100mA$ ,
	Turn-Off Time	$T_{Of}$		0.05	2.0	ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	$10^{10}$			Ω	DC500V
	I/O Capacitance	$C_{I/O}$		0.8	1.5	pF	f=1MHz

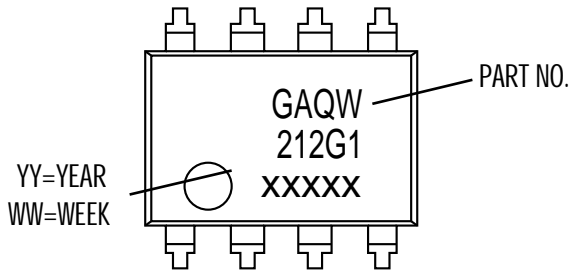
### Reference Data



### 8-SMD

### Dimensions

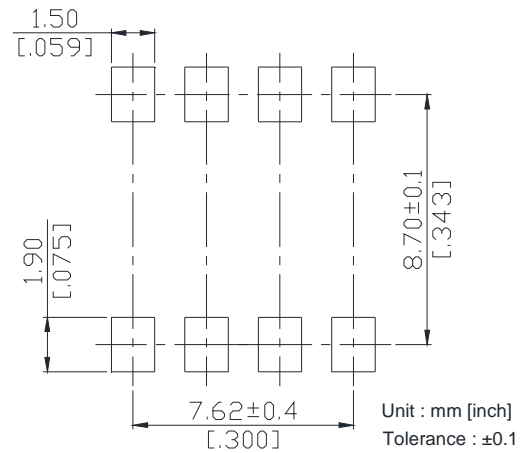
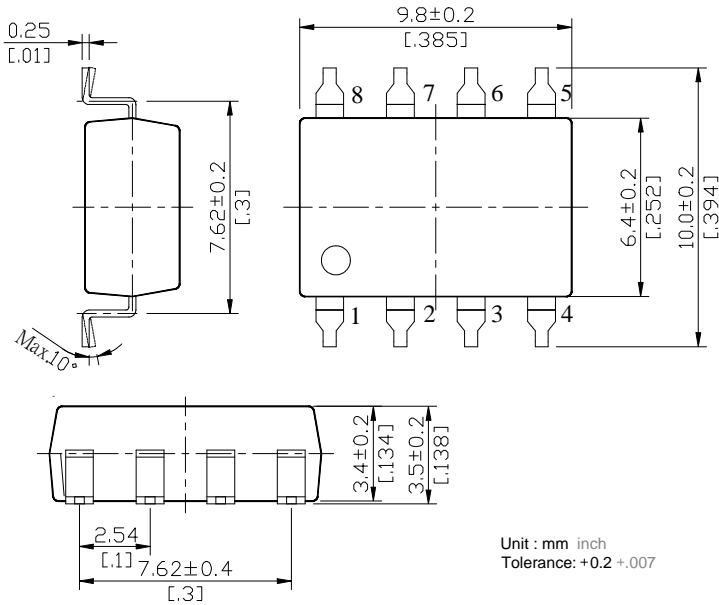
mm inch



Surface mount terminal type

PC board pattern

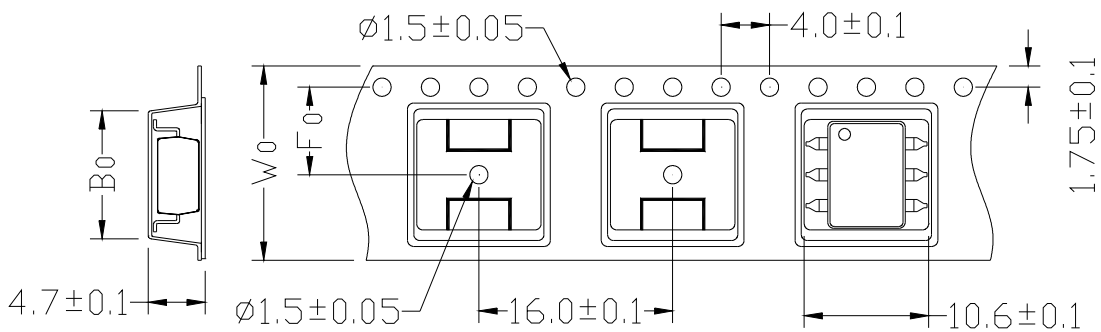
(Top view)



Unit: mm inch  
Tolerance: +0.2 +.007

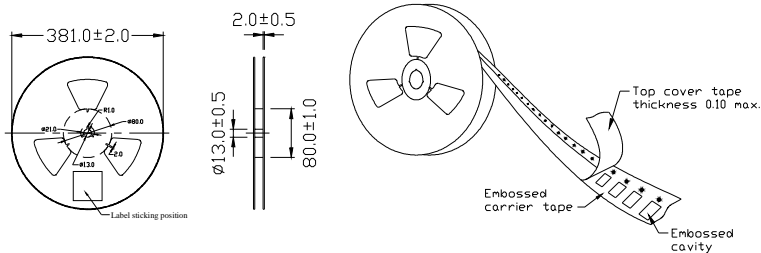
Tape dimensions

Direction of feed



Unit: mm

Dimensions of tape reel

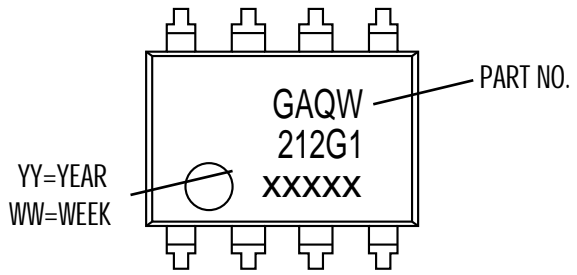


## 8-DIP

## Dimensions

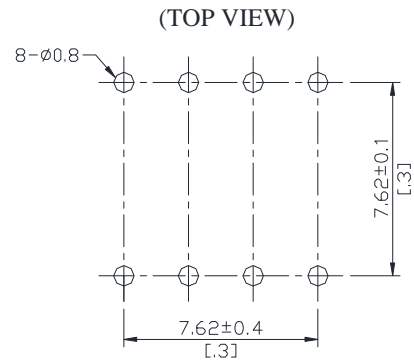
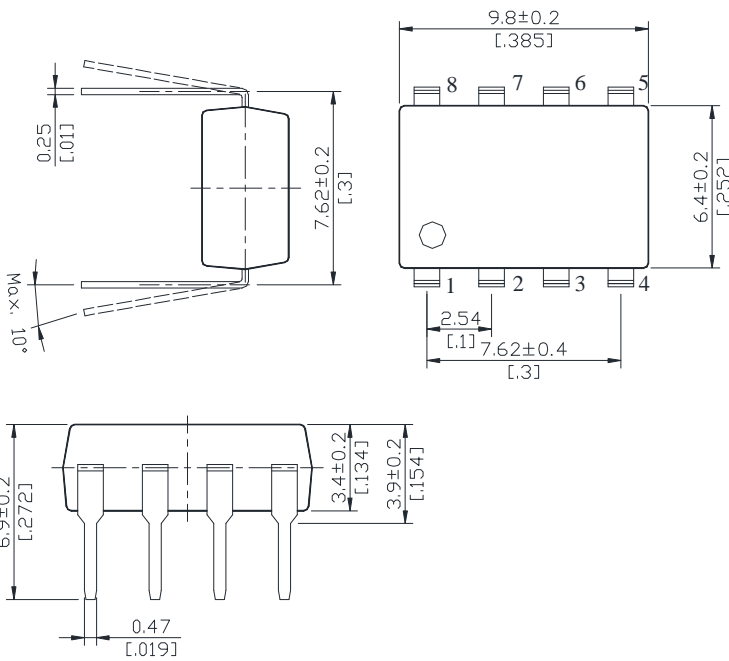


mm inch



## 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.

