

**Features**

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

**Applications**

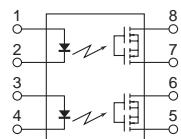
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine



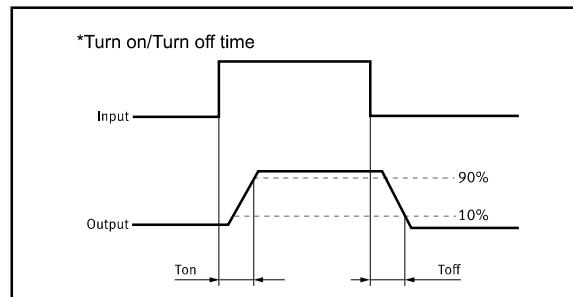
SMD-8



DIP-8



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

**TYPES**

Category	Output rating		Part No.	Package	Packing quantity
	Load voltage	Load current			
AC/DC	350V	150mA	GAQW210E	DIP-8	25pcs/Tube
			GAQW210EH	SMD-8	1000pcs/1reel

## 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>	150	mA	
	Peak Load Current	I <sub>Peak</sub>	0.8	A	100ms(1 pulse)
	Output Power Dissipation	P <sub>out</sub>	750	mW	
Total Power Dissipation		P <sub>T</sub>	800	mW	
I/O Breakdown Voltage		V <sub>I/O</sub>	3750	V <sub>rm</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)

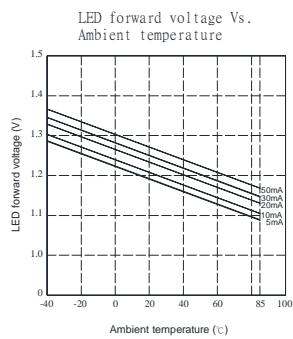
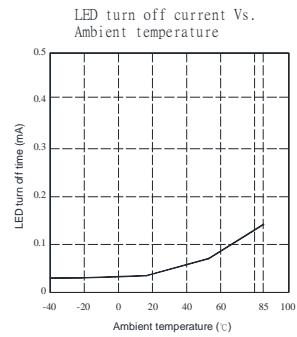
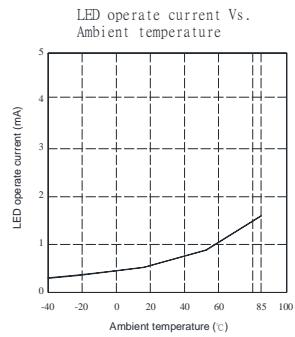
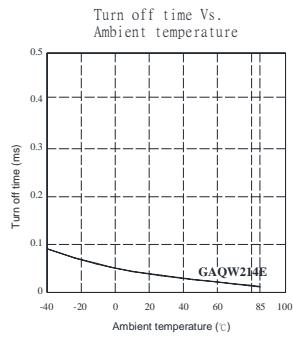
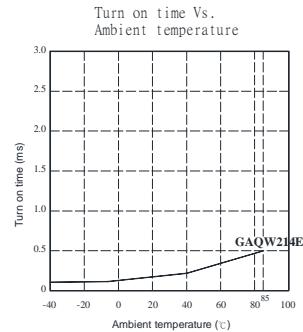
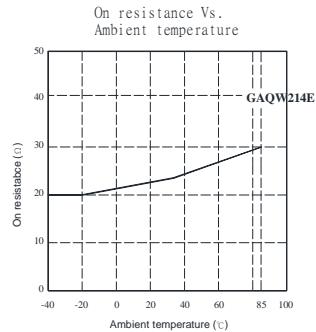
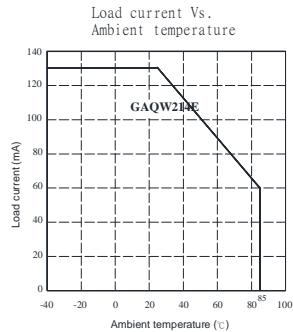
Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V <sub>F</sub>	1.23	1.3	1.50	V	I <sub>F</sub> =10mA
	Operation LED Current	I <sub>F On</sub>		0.9	3.0	mA	
	Recovery LED Current	I <sub>F Off</sub>		0.35	0.5	mA	
	Recovery LED Voltage	V <sub>F Off</sub>	0.5	1.2		V	
Output	On-Resistance	R <sub>On</sub>		14	18	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>			0.1	uA	V <sub>L</sub> =Rating
	Output Capacitance	C <sub>out</sub>		58		pF	V <sub>L</sub> =0, f=1MHz
Transmission	Turn-On Time	T <sub>On</sub>		0.3	1.0	ms	I <sub>F</sub> =5mA, I <sub>L</sub> =100mA,
	Turn-Off Time	T <sub>Off</sub>		0.03	0.5	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): IF ≥5mA and ≤30mA.

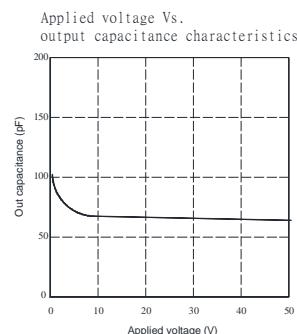
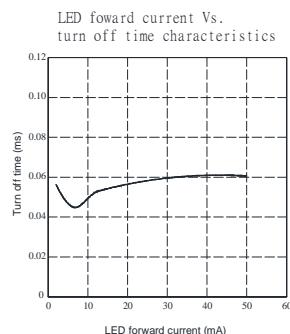
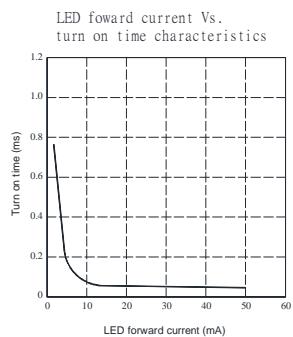
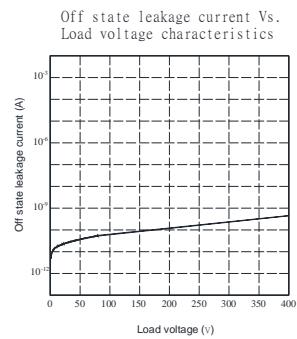
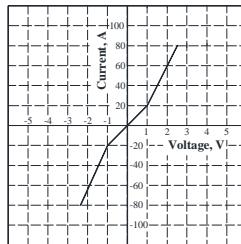
Examples of resistance value to control LED forward current (IF=5mA, INPUT VOLTAGE="E",RESISTORS="R")

"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



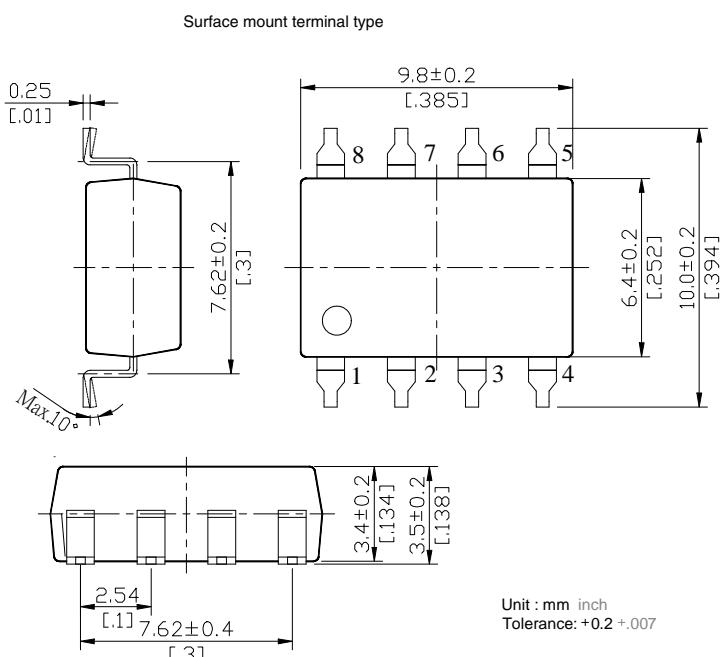
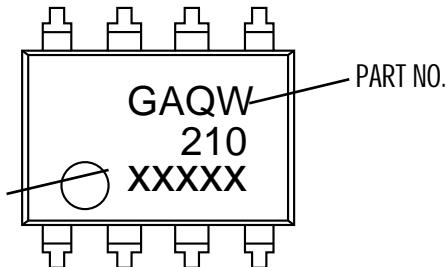
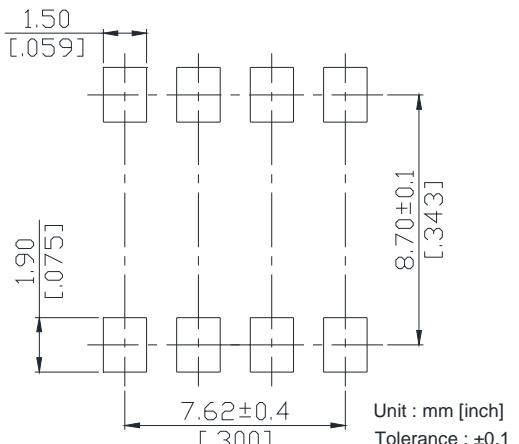
Voltage Vs. current characteristics  
of output at MOS portion



**8-SMD**

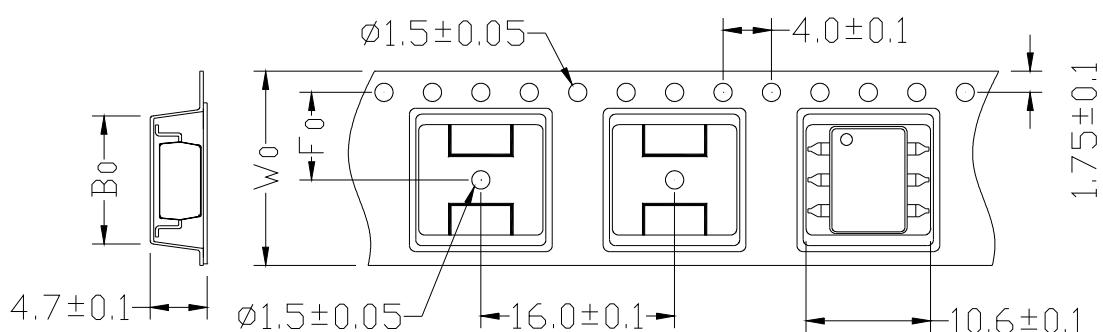
## Dimensions

mm inch

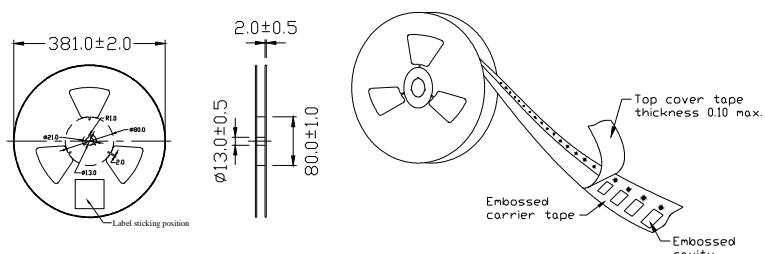

 YY=YEAR  
WW=WEEK

 PC board pattern  
(Top view)


## Tape dimensions

Direction of feed →



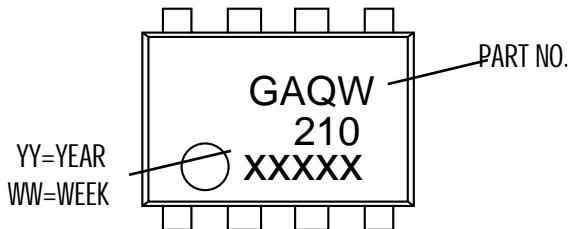
## Dimensions of tape reel



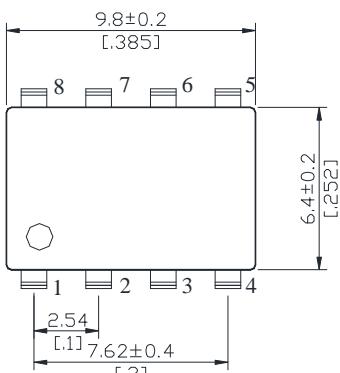
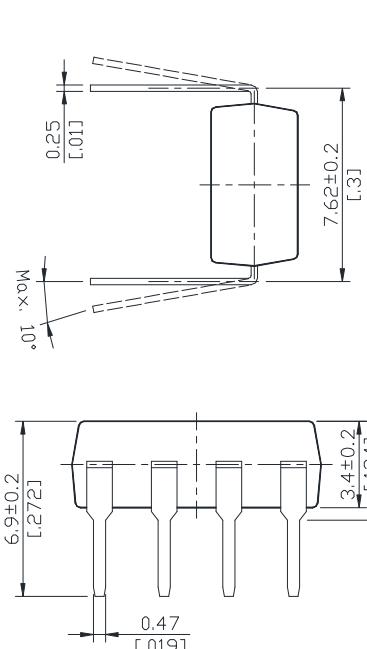
**8-DIP**

## Dimensions

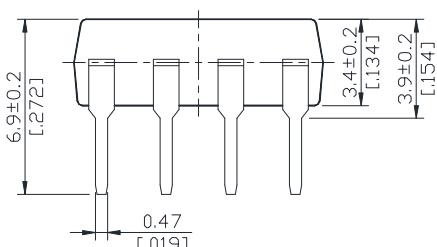
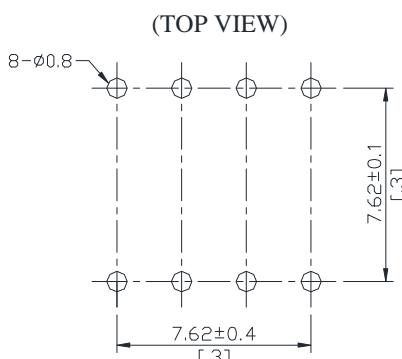
mm inch



Through hole terminal type

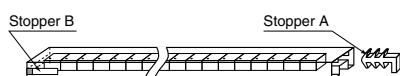


PC board pattern


 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.



单击下面可查看定价，库存，交付和生命周期等信息

[>>SUPSiC\(国晶微\)](#)