



### Features

- Low driver power requirements (TTL/CMOS Compatible)
- Contact form: Normally-Off (1b)
- Load voltage: 400V max.
- On-Resistance: 50Ω max.
- 3750Vrms Input/Output isolation
- Tape & Reel version available

### Applications

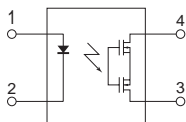
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine



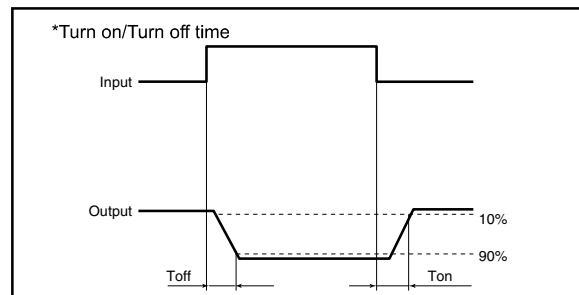
DIP4



SMD4



1. LED Anode
2. LED Cathode
3. Drain (MOSFET)
4. Drain (MOSFET)



### TYPES

Category	Output rating		Package	Part No.	Packing quantity
	Load voltage	Load current			
AC/DC	400V	120mA	DIP4	GAQY414E	50pcs/tube
			SMD4	GAQY414EH	1000pcs/1reel

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

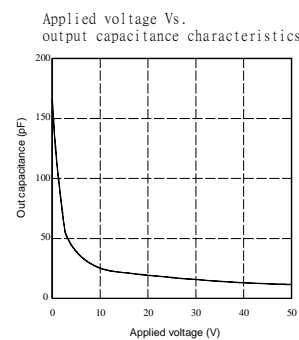
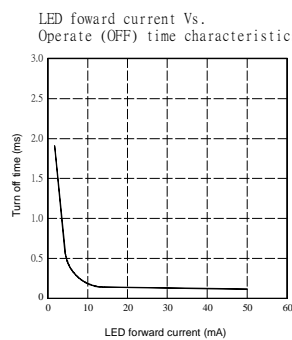
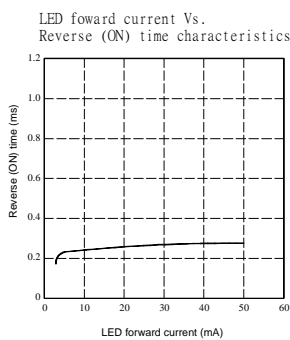
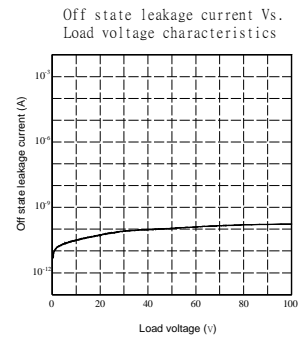
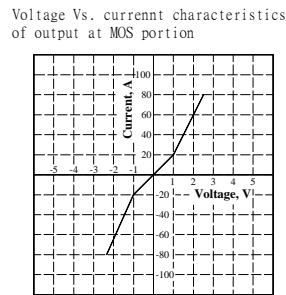
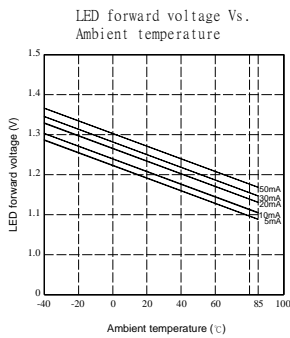
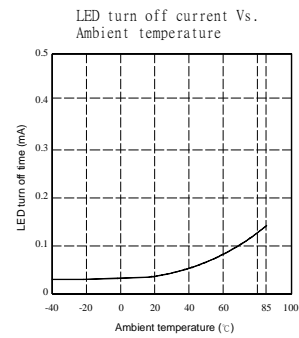
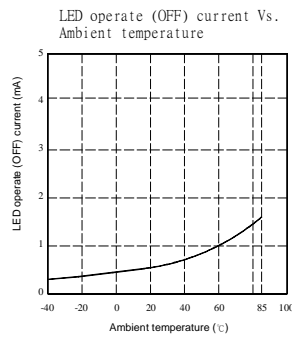
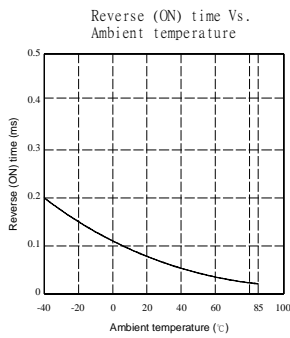
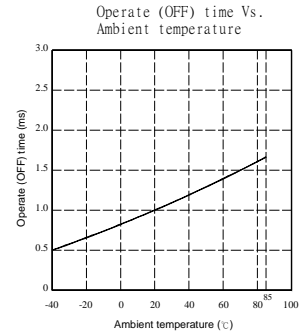
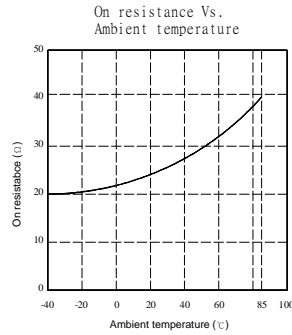
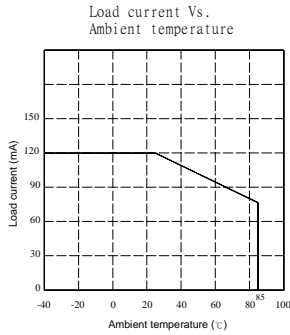
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I <sub>F</sub>	50	mA	
	Peak LED Current	I <sub>FP</sub>	500	mA	f=100Hz, duty=1%
	LED Reverse Voltage	V <sub>R</sub>	5	V	
	Input Power Dissipation	P <sub>In</sub>	75	mW	
Output	Load Voltage	V <sub>L</sub>	400	V(AC peak or DC)	
	Load Current	I <sub>L</sub>	120	mA	
	Peak Load Current	I <sub>Peak</sub>	0.3	A	1ms(1 pulse)
	Output Power Dissipation	P <sub>Out</sub>	500	mW	
Total Power Dissipation		P <sub>T</sub>	550	mW	
I/O Breakdown Voltage		V <sub>I/O</sub>	3750	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>Fon</sub>		0.5	3.0	mA	
	Recovery LED Current	I <sub>Foff</sub>		0.35	0.5	mA	
	Recovery LED Voltage	V <sub>Foff</sub>	0.5			V	
Output	On-Resistance	R <sub>on</sub>		20	50	Ω	I <sub>F</sub> =0mA, I <sub>L</sub> =50mA, Time to flow is within 1 sec.
	Off-State Leakage Current	I <sub>Leak</sub>			10	uA	I <sub>F</sub> =5mA, V <sub>L</sub> =400V
	Output Capacitance	C <sub>out</sub>		165		pF	I <sub>F</sub> =5mA, V <sub>L</sub> =0, f=1MHz
Transmission	Turn-On Time	T <sub>on</sub>		0.02	1.0	ms	I <sub>F</sub> =5mA, I <sub>L</sub> =50mA
	Turn-Off Time	T <sub>off</sub>		0.5	3.0	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		pF	f=1MHz

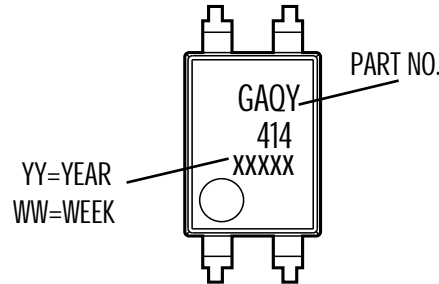
Please obey the following conditions to ensure proper device operation and resetting. Input LED current (Recommended value): I<sub>F</sub> ≥5mA and ≤30mA.  
 Examples of resistance value to control LED forward current (I<sub>F</sub>=5mA, INPUT VOLTAGE="E", RESISTORS="R")  
 "E"=3.3V, "R"=330Ω; "E"=5V, "R"=640Ω; "E"=12V, "R"=1.9KΩ; "E"=15V, "R"=2.5KΩ; "E"=24V, "R"=4.1KΩ;

## Reference Data

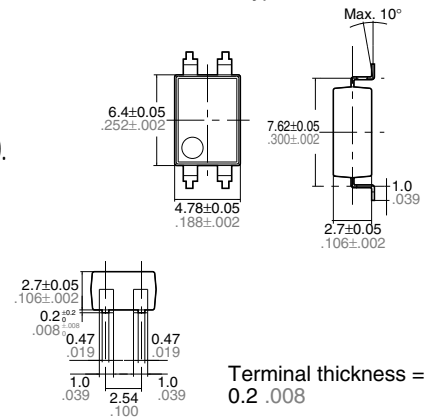


## Dimensions

### 4-SMD

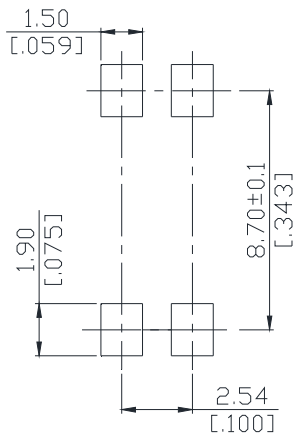


### Surface mount terminal type



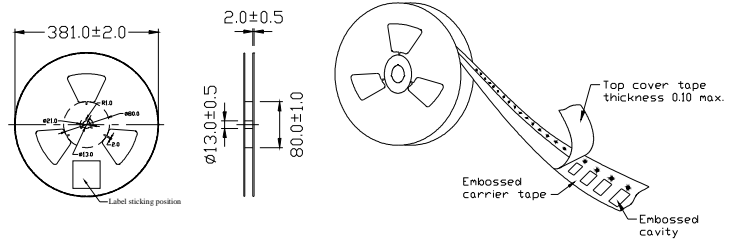
General tolerance:  $\pm 0.1 \pm 0.04$

### PC board pattern (Top view)

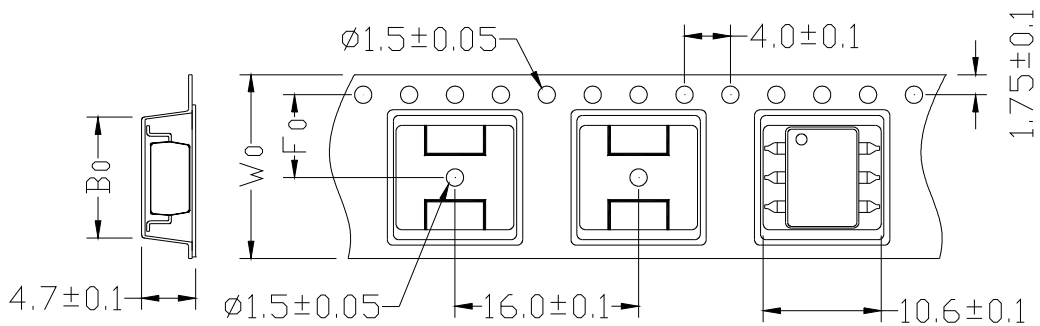


Unit : mm [inch]  
Tolerance :  $\pm 0.1$

### Tape dimensions



### Dimensions of tape reel

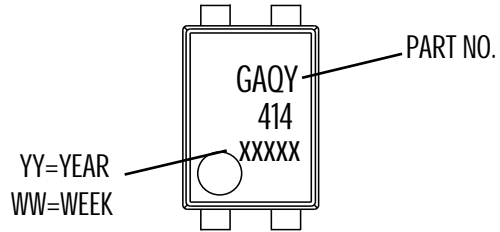


Unit: mm

TYPE	B0±0.1	F0±0.1	W0±0.1	13"REEL/PCS
4P	5.3	7.5	16	1000

## Dimensions

### 4-DIP



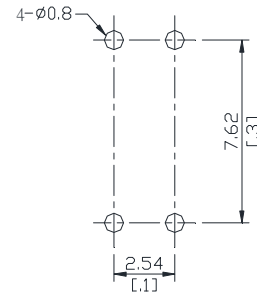
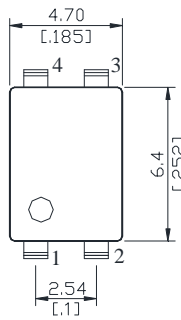
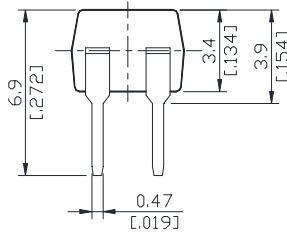
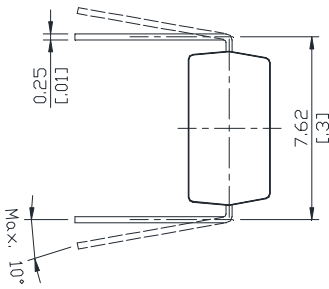
mm inch

### Dimensions

#### Through hole terminal type

#### PC board pattern

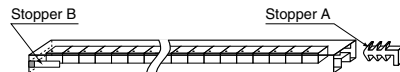
(TOP VIEW)



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\(国晶微\)](#)