



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

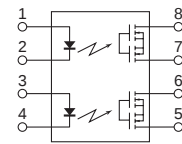
Outline Dimensions



SMD-8



DIP-8



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

TYPES

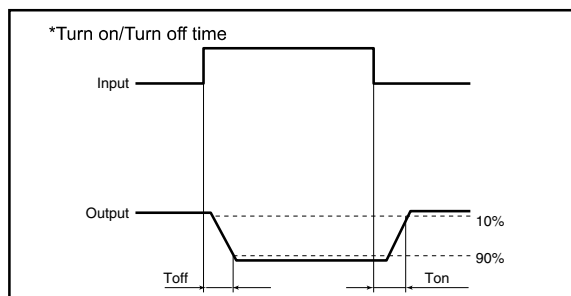
Category	Output rating		Package	Part No.	Packing quantity
	Load voltage	Load current			
AC/DC	60V	500mA	DIP8	GAQW412E	50pcs/tube
			SMD8	GAQW412EH	1000pcs/reel

Absolute Maximum Ratings (Ambient Temperature: 25°C)

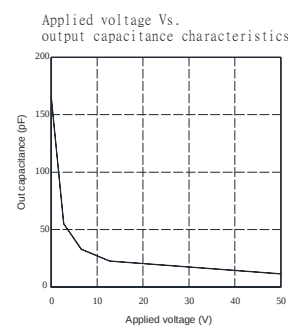
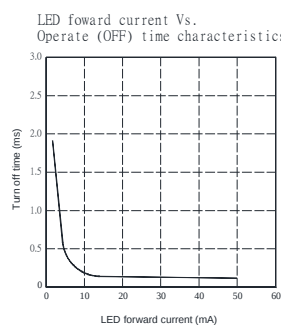
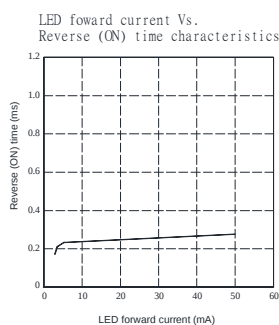
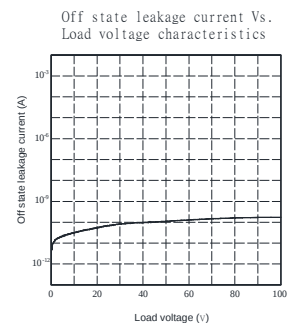
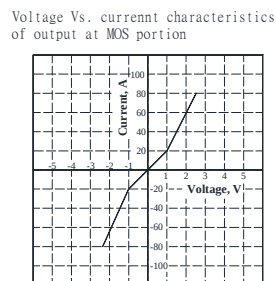
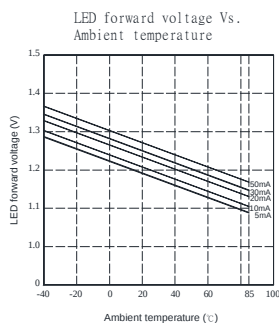
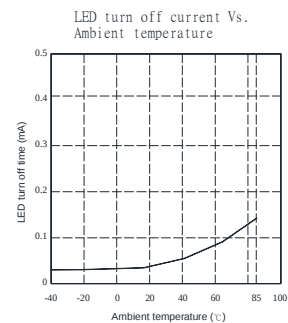
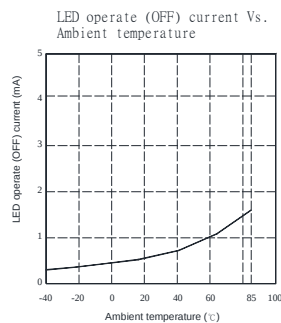
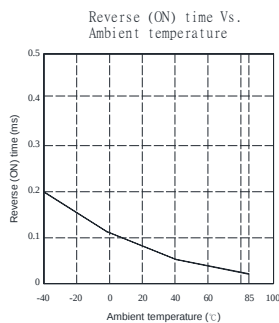
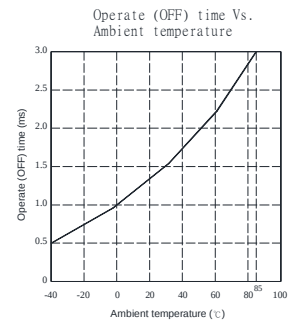
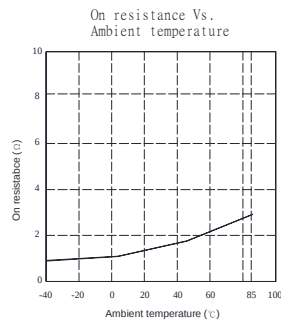
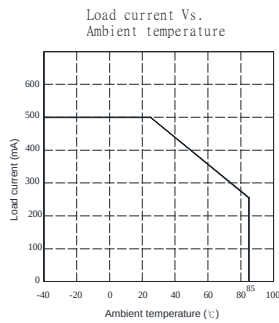
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I _F	50	mA	
	Peak LED Current	I _{FP}	1000	mA	f=100Hz, duty=1%
	LED Reverse Voltage	V _R	5	V	
	Input Power Dissipation	P _{in}	75	mW	
Output	Load Voltage	V _L	60	V(AC peak or DC)	
	Load Current	I _L	500	mA	
	Peak Load Current	I _{Peak}	0.6	A	1ms(1 pulse)
	Output Power Dissipation	P _{out}	300	mW	
Total Power Dissipation		P _T	350	mW	
I/O Breakdown Voltage		V _{I/O}	3750	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	$I_F=10\text{mA}$
	Operation LED Current	I_{Fon}		0.5	3.0	mA	
	Recovery LED Current	I_{Foff}	0.1	0.4		mA	
	Recovery LED Voltage	V_{Foff}	0.5			V	
Output	On-Resistance	R_{on}		1	3	Ω	$I_F=0\text{mA}, I_L=50\text{mA}$, Time to flow is within 1 sec.
	Off-State Leakage Current	I_{Leak}			1	μA	$I_F=5\text{mA}, V_L=60\text{V}$
	Output Capacitance	C_{out}		165		pF	$I_F=5\text{mA}, V_L=0$, $f=1\text{MHz}$
Transmis sion	Turn-On Time	T_{on}		0.5	1.5	ms	$I_F=5\text{mA}, I_L=50\text{mA}$
	Turn-Off Time	T_{off}		0.25	2.0	ms	
Coupled	I/O Isolation Resistance	$R_{i/o}$	10^{10}			Ω	DC500V
	I/O Capacitance	$C_{i/o}$		0.8		pF	$f=1\text{MHz}$

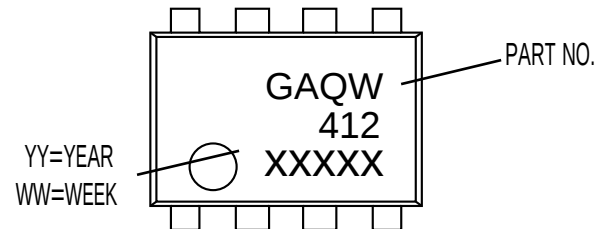


Reference Data

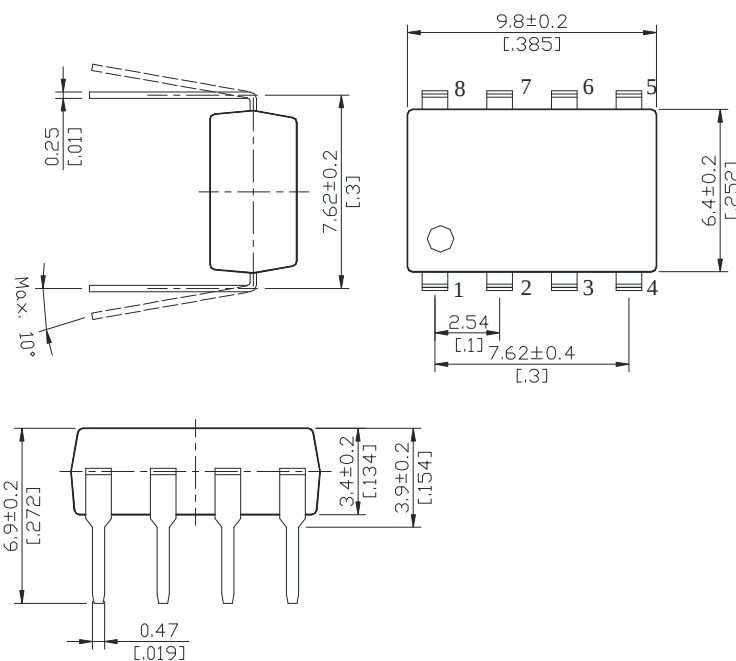


8-DIP

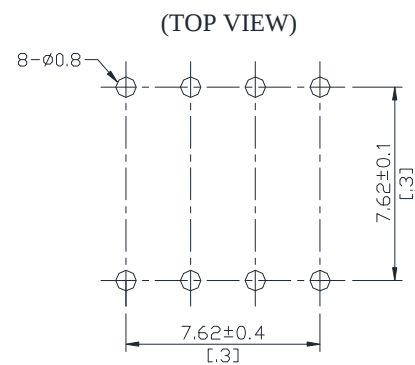
Dimensions



Through hole terminal type



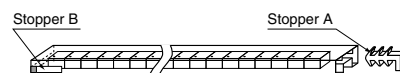
PC board pattern



Unit : mm inch
Tolerance: +0.2 +.007

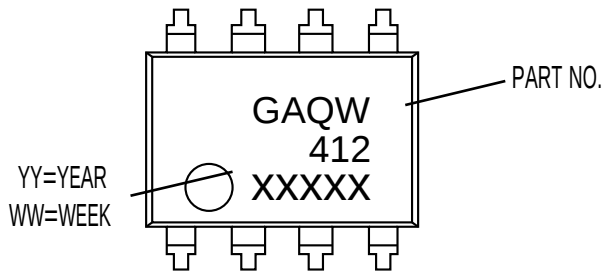
DIP type

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

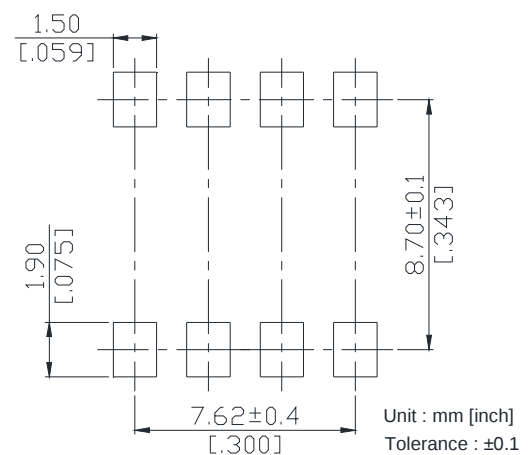
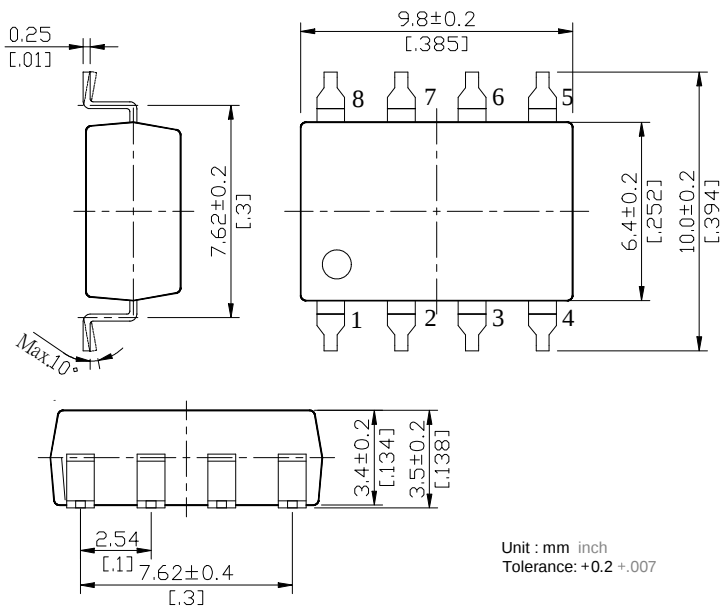
Dimensions



Surface mount terminal type

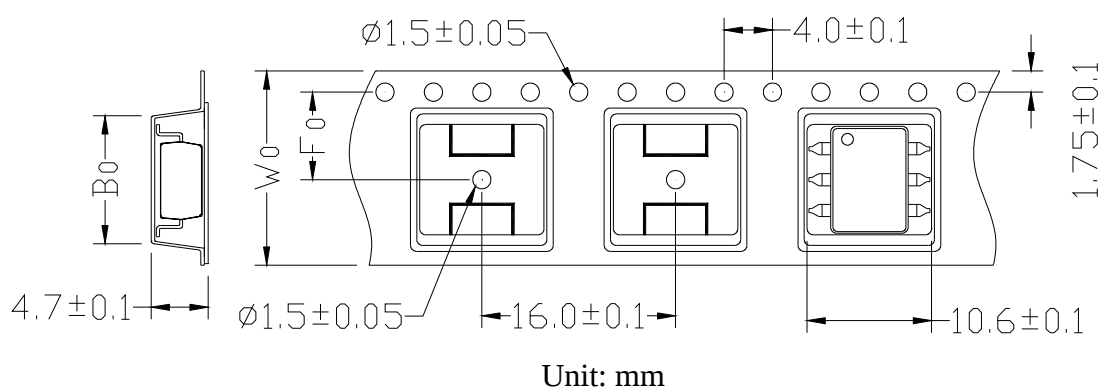
PC board pattern

(Top view)



Tape dimensions

Direction of feed



Dimensions of tape reel

