Features

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

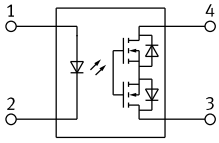
Applications

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

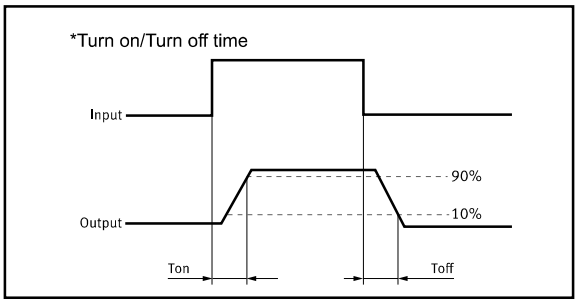
Outline Dimensions

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	0.13A	DIP4	GAQY214E	50pcs/tube
			SMD4	GAQY214EH	1000pcs/1reel

Absolute Maximum Ratings (Ambient Temperature: 25℃)

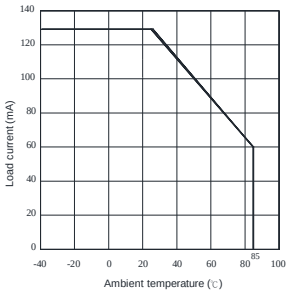
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I_F	50	mA	
	Peak LED Current	I_{FP}	1000	mA	f=100Hz, uty=1%
	LED Reverse Voltage	V_R	5	V	
	Input Power Dissipation	P_{In}	75	mW	
Output	Load Voltage	V_L	400	V(AC peak or DC)	
	Load Current	I_L	130	mA	
	Peak Load Current	I_{Peak}	0.6	A	100ms(1 pulse)
	Output Power Dissipation	Pout	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	℃	
Storage Temperature		T_{Stg}	-40 to +100	℃	
Pin Soldering Temperature		T_{Sol}	260	℃	10 sec max.

Electrical Specifications (Ambient Temperature: 25℃)

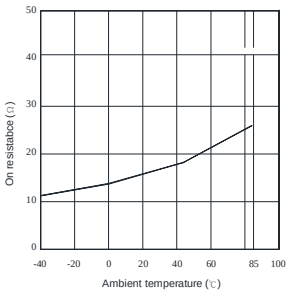
Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V_F		1.2	1.4	V	I_F=10mA
	Operation LED Current	$I_{F\ On}$		0.5	3.0	mA	
	Recovery LED Current	$I_{F\ Off}$		0.35	0.5	mA	
	Recovery LED Voltage	$V_{F\ Off}$	0.5			V	
Output	On-Resistance	R_{On}		16	25	Ω	I_F=5mA,I_L=120mA, Time to flow is within 1 sec.
	Off-State Leakage Current	I_{Leak}			1	uA	V_L=Rating
	Output Capacitance	C_{Out}		110		pF	V_L=0, f=1MHz
Transmission	Turn-On Time	T_{On}		0.5	1	ms	I_F=5mA, I_L=100mA
	Turn-Off Time	T_{Off}		0.03	0.5	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

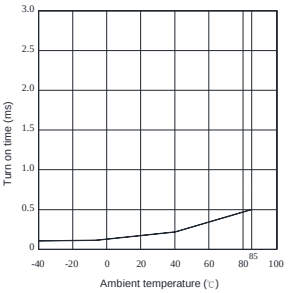
Load current Vs. Ambient temperature



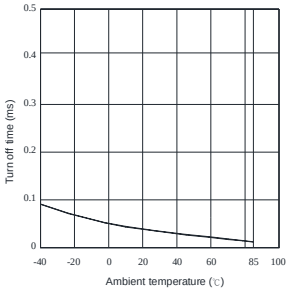
On resistance Vs. Ambient temperature



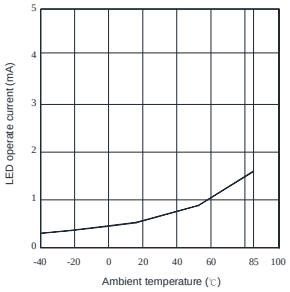
Turn on time Vs. Ambient temperature



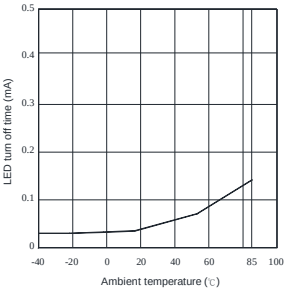
Turn off time Vs. Ambient temperature



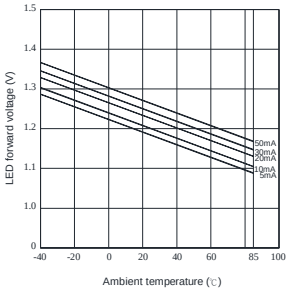
LED operate current Vs. Ambient temperature



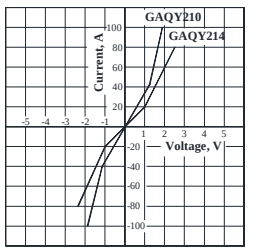
LED turn off current Vs. Ambient temperature



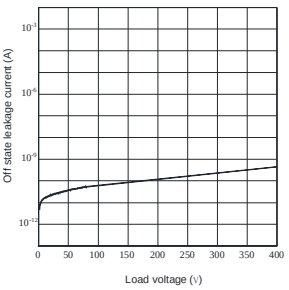
LED forward voltage Vs. Ambient temperature



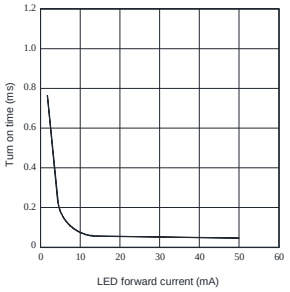
Voltage Vs. currennt characteristics of output at MOS portion



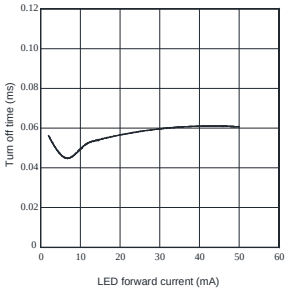
Off state leakage current Vs. Load voltage characteristics



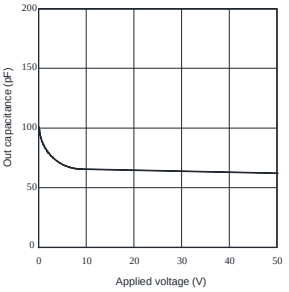
LED foward current Vs. turn on time characteristics



LED foward current Vs. turn off time characteristics



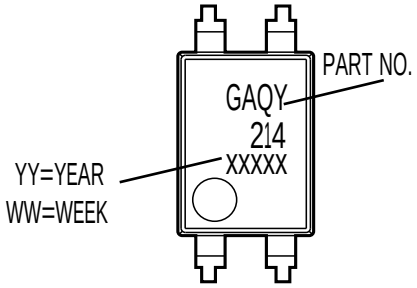
Applied voltage Vs. output capacitance characteristics



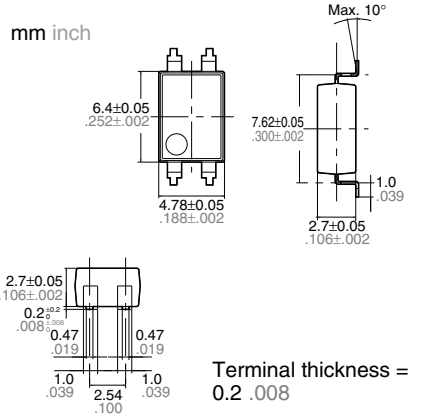
Dimensions

4-SMD

Dimensions

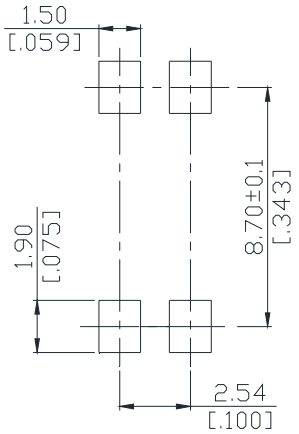


Surface mount terminal type



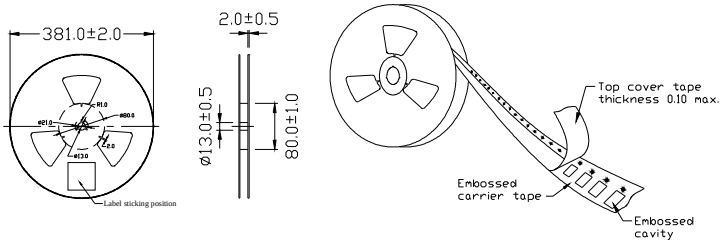
General tolerance: ±0.1 ±.004

PC board pattern (Top view)

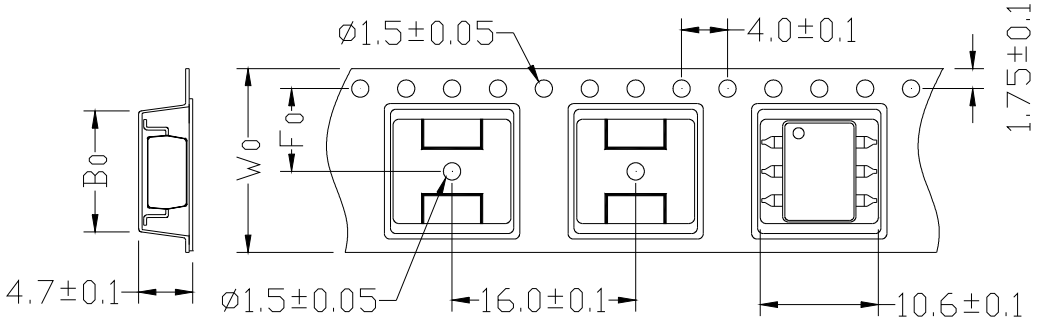


Unit : mm [inch]
Tolerance : ±0.1

Tape dimensions



Dimensions of tape reel

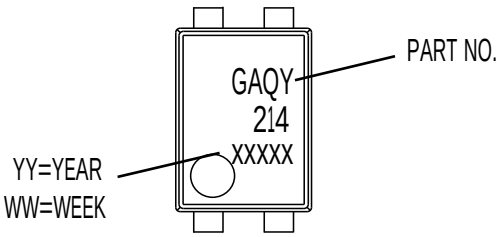


Unit: mm

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

Dimensions

4-DIP



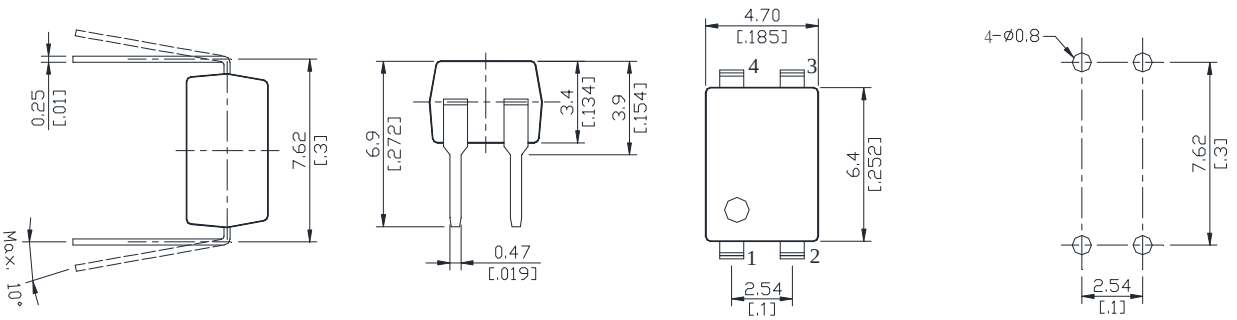
mm inch

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.