



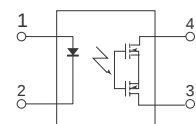
Features

- SOP package 4 Pin type in miniature design (4.4X4.3X2.1mm/.173X.169X.083inch)
- Low driver power requirements (TTL/CMOS Compatible)
- No moving parts
- High reliability
- Arc-Free with no snubbing circuits
- 1500Vrms Input/Output isolation
- Tape & Reel version available



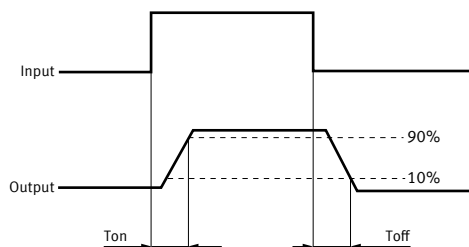
Applications

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



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

*Turn on/Turn off time



Types

Category	Output rating		Part No.	Packing quantity
	Load voltage	Load current	SOP	Tape and reel
AC/DC	400 V	0.12A	AQY214S	1-reel: 2,000 pcs.



Absolute Ratings($T_{amb} = 25^{\circ}\text{C}$)

Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I_F	50	mA	
	Peak LED Current	I_{FP}	1000	mA	$f=100\text{Hz}$, $\text{duty}=1\%$
	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	120	mA	
	Peak Load Current	I_{Peak}	0.6	A	100ms(1 pulse)
	Output Power Dissipation	P_{out}	300	mW	
Total Power Dissipation		P_T	350	mW	
I/O Breakdown Voltage		$V_{I/O}$	1500	Vrms	RH=60%, 1min
Operating Temperature		T_{Opr}	-40 to +85	$^{\circ}\text{C}$	
Storage Temperature		T_{Stg}	-40 to +100	$^{\circ}\text{C}$	
Pin Soldering Temperature		T_{Sol}	260	$^{\circ}\text{C}$	10 sec max.

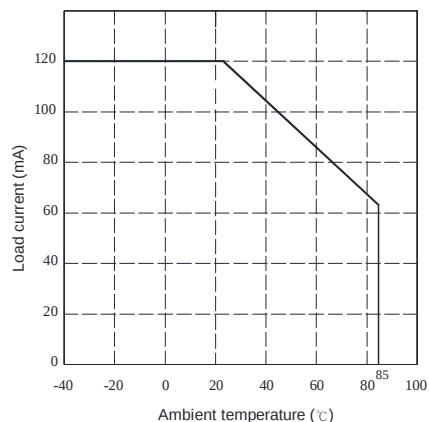
Electrical Characteristics Ratings at 25°C

Item		Symbol	Min.	Typ.	Max.	Units	Conditions
Input	LED Forward Voltage	V_F		1.2	1.4	V	$I_F=10\text{mA}$
	Operation LED Current	$I_{F\text{ On}}$		0.5	3.0	mA	
	Recovery LED Current	$I_{F\text{ Off}}$		0.35	0.5	mA	
	Recovery LED Voltage	$V_{F\text{ Off}}$	0.7			V	
Output	On-Resistance	R_{On}		15	20	Ω	$I_F=5\text{mA}$, $I_L=100\text{mA}$, Time to flow is within 1 sec.
	Off-State Leakage Current	I_{Leak}			0.01	μA	$V_L=\text{Rating}$
	Output Capacitance	C_{Out}		45		pF	$V_L=0$, $f=1\text{MHz}$
Transmis sion	Turn-On Time	T_{On}		0.12	0.3	ms	$I_F=5\text{mA}$, $I_L=100\text{mA}$,
	Turn-Off Time	T_{Off}		0.10	0.2	ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	10^{10}			Ω	DC500V
	I/O Capacitance	$C_{I/O}$		0.8	1.5	pF	$f=1\text{MHz}$

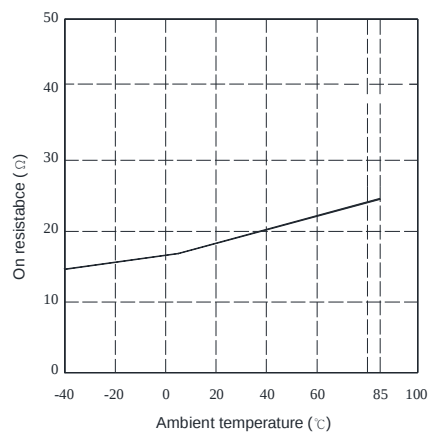


Reference Data

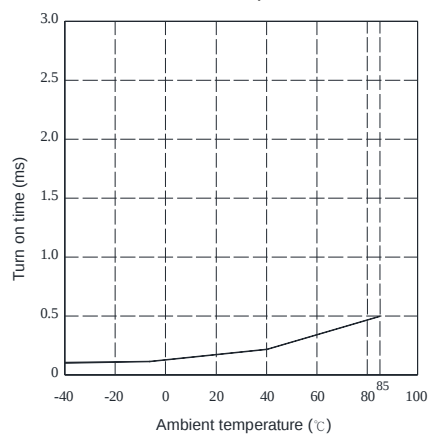
Load current Vs.
Ambient temperature



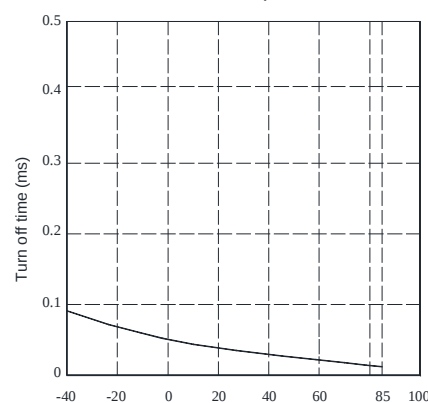
On resistance Vs.
Ambient temperature



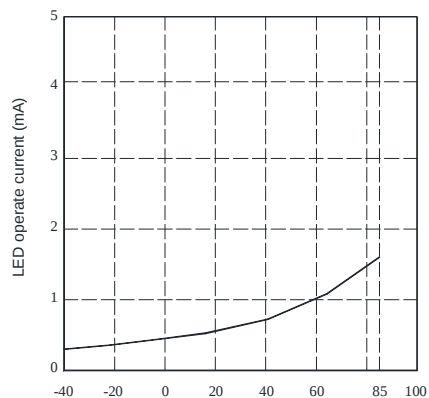
Turn on time Vs.
Ambient temperature



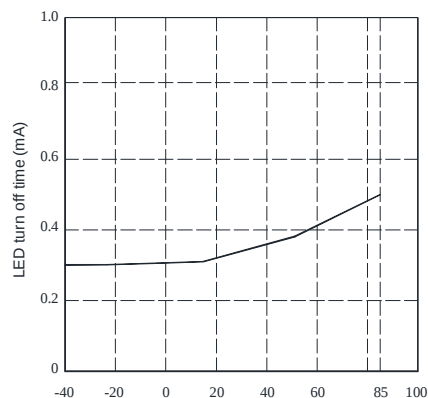
Turn off time Vs.
Ambient temperature



LED operate current Vs.
Ambient temperature

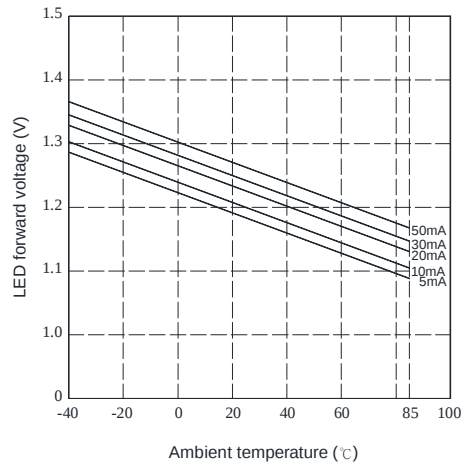


LED turn off current Vs.
Ambient temperature

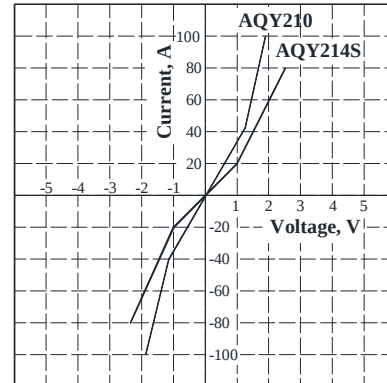




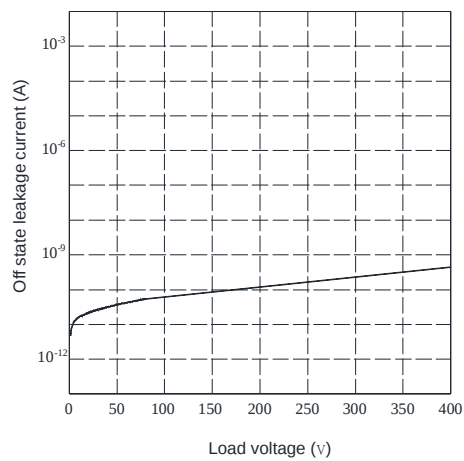
LED forward voltage Vs.
Ambient temperature



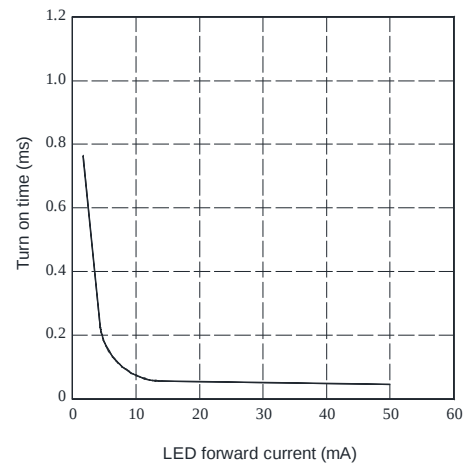
Voltage Vs. current characteristics of
output at MOS portion



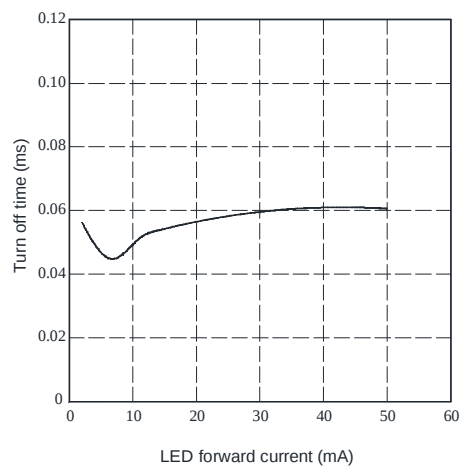
Off state leakage current Vs.
Load voltage characteristics



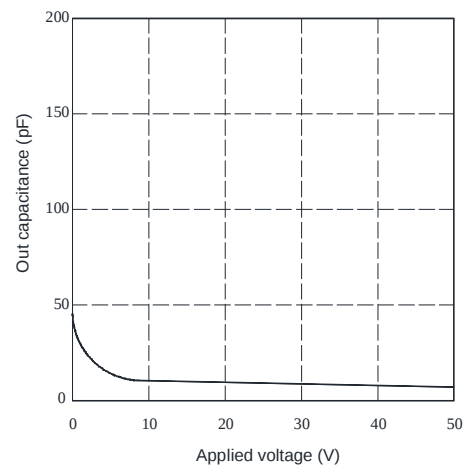
LED forward current Vs.
turn on time characteristics

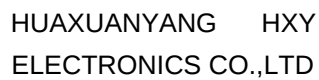


LED forward current Vs.
turn off time characteristics



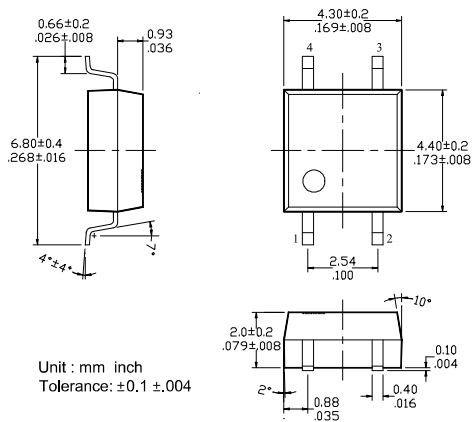
Applied voltage Vs.
output capacitance characteristics





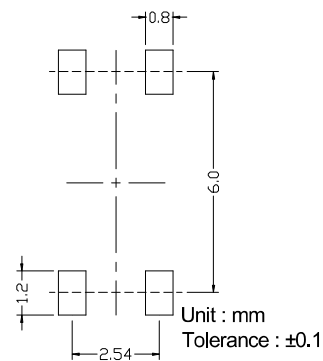
Load voltage:400V / Load current:0.12A

Surface mount terminal type



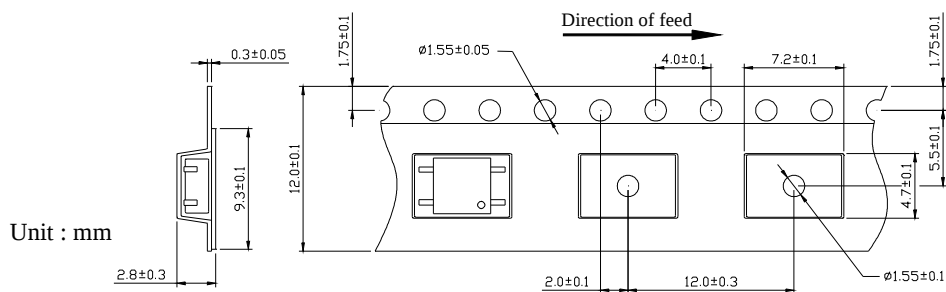
Unit : mm inch
Tolerance: ± 0.1 $\pm .004$

Recommended mounting pad (Top view)



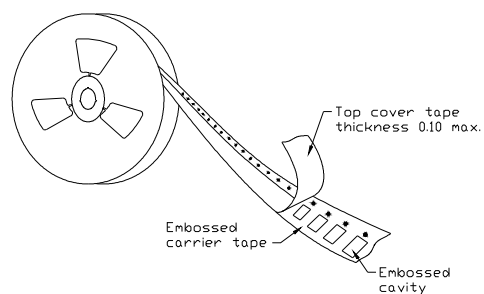
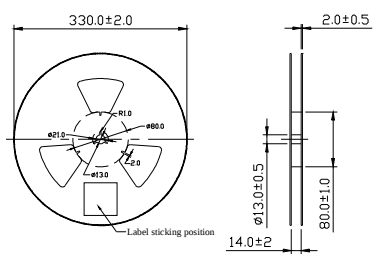
Unit : mm
Tolerance : ± 0.1

Tape dimensions



Unit : mm

Dimensions of tape reel





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