

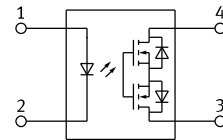
Features

- * Low-level off state leakage current of max. 10 nA
- * Low driver power requirements (TTL/CMOS Compatible)
- * Low C : Output capacitance= 8 pF(Typ.)
- * No moving parts ,High reliability
- * Arc-Free with no snubbing circuits
- * 1500Vrms Input/Output isolation
- * Tape & Reel version available
- * SOPpackage4Pintypeinminiaturedesign (4.4×4.3×2.0mm/.173×.169×.083inch)

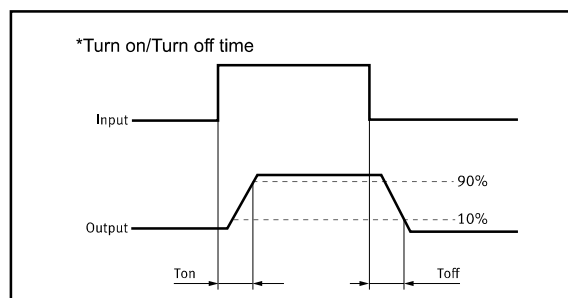


Applications

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



1. LED Anode
2. LED Cathode
- 3, 4. Drain (MOS FET)



TYPES

Category	Output rating ^{*1}		Part No.	Packing quantity
	Load voltage	Load current	SOP	Tape and reel
AC/DC	48 V	0.25 A	GAQY221R2S	1-reel:2,000 pcs.

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	48V	V(AC peak or DC)	
	Load Current	I_L	0.25	A	
	Peak Load Current	I_{Peak}	0.60	A	100ms(1 pulse)
	Output Power Dissipation	P_{out}	450	mW	
Total Power Dissipation		P_T	500	mW	
I/O Breakdown Voltage		$V_{I/O}$	1500	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	1.4	V	$I_F=10mA$
	Operation LED Current	I_{Fon}		0.5	2.0	mA	
	Recovery LED Current	I_{Foff}		0.35	0.5	mA	
	Recovery LED Voltage	V_{Foff}	0.7			V	
Output	On-Resistance	R_{on}		3.3	5.0	Ω	$I_F=5mA, I_L=100mA$, Time to flow is within 1 sec.
	Off-State Leakage Current	I_{Leak}		3	10	nA	$V_L=Rating$
	Output Capacitance	C_{out}		8		pF	$V_L=0, f=1MHz$
Transmission	Turn-On Time	T_{on}		0.03	0.50	ms	$I_F=5mA, I_L=100mA$,
	Turn-Off Time	T_{off}		0.03	0.10	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

