

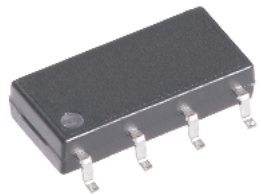


## Features

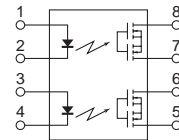
- \* SOP package 8 Pin type in miniature design
- \* Low driver power requirements (TTL/CMOS Compatible)
- \* Low CxR . Output capacitance=28pF(Typ.)
- \* On-Resistance=0.8Ω(Typ.) , Off-State leakage current= 1nA(Typ.)
- \* No moving parts ,High reliability
- \* Arc-Free with no snubbing circuits
- \* 1500Vrms Input/Output isolation
- \* Tape & Reel version available

## Applications

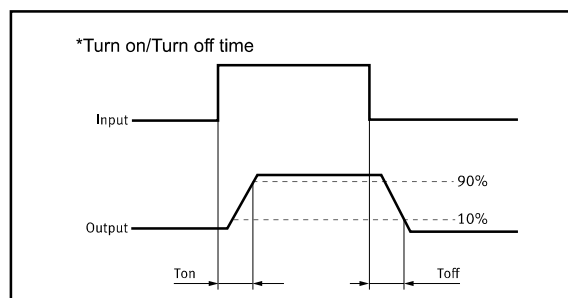
- \* Telecommunications (PC, Electronic notepad)
- \* Measuring and Testing equipment
- \* Industrial control
- \* Security equipments
- \* High speed inspection machine



SOP-8



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



## TYPES

| Category | Output rating <sup>*1</sup> |              | Part No.  | Packing quantity |
|----------|-----------------------------|--------------|-----------|------------------|
|          | Load voltage                | Load current | SOP       | Tape and reel    |
| AC/DC    | 60 V                        | 0.5A         | GAQW212GS | 1-reel: 2,000    |

Absolute Maximum Ratings (Ambient Temperature: 25°C)

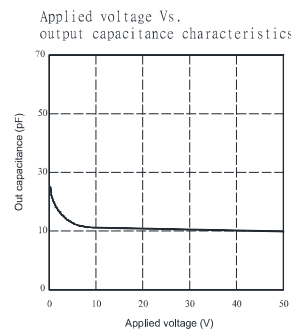
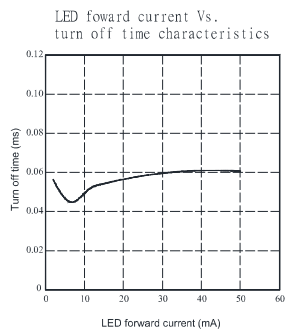
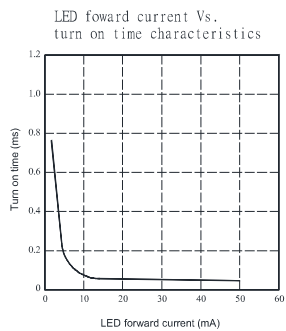
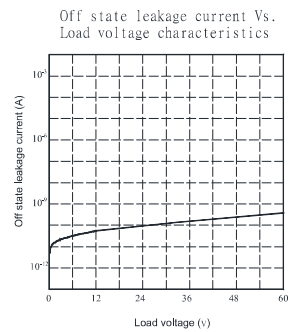
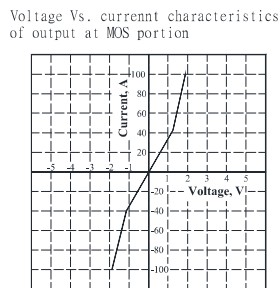
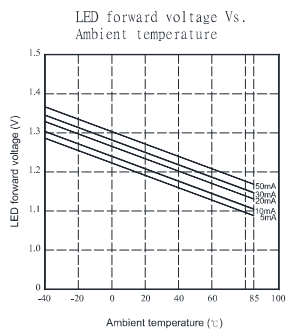
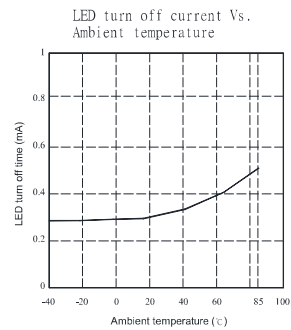
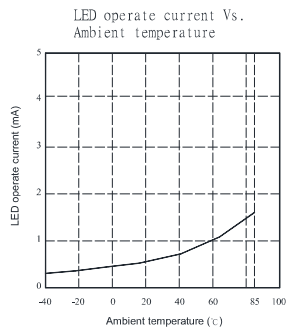
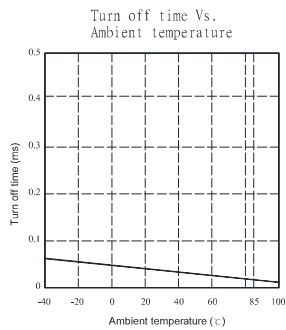
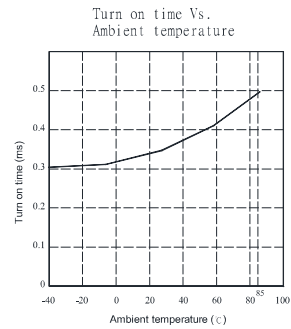
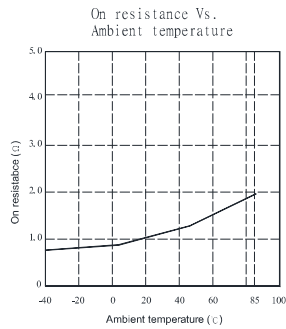
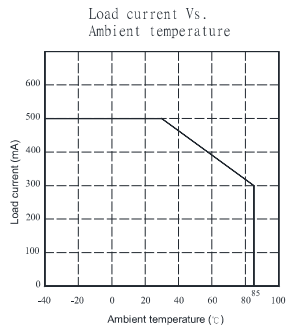
| Item                      |                          | Symbol     | Value       | Units            | Note             |
|---------------------------|--------------------------|------------|-------------|------------------|------------------|
| Input                     | Continuous LED Current   | $I_F$      | 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        | $I_{Peak}$ | 1.5         | 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     | $I_{Fon}$  |           | 0.8  | 2.0  | mA       |   |
|              | Recovery LED Current      | $I_{Foff}$ |           | 0.35 | 0.5  | mA       |   |
|              | Recovery LED Voltage      | $V_{Foff}$ | 0.7       |      |      | V        |   |
| Output       | On-Resistance             | $R_{on}$   |           | 0.8  | 2    | $\Omega$ | $I_F=5mA, I_L=100mA$ ,<br>Time to flow is within 1 sec. |
|              | Off-State Leakage Current | $I_{Leak}$ |           | 0.5  | 1.0  | $\mu A$  | $V_L=Rating$  |
|              | Output Capacitance        | $C_{out}$  |           | 28   |      | pF       | $V_L=0, f=1MHz$   |
| Transmission | Turn-On Time              | $T_{on}$   |           | 0.35 | 0.5  | ms       | $I_F=5mA, I_L=100mA$ ,                                  |
|              | Turn-Off Time             | $T_{off}$  |           | 0.2  | 0.3  | ms       |   |
| Coupled      | I/O Isolation Resistance  | $R_{I/O}$  | $10^{10}$ |      |      | $\Omega$ | DC500V  |
|              | I/O Capacitance           | $C_{I/O}$  |           | 0.8  | 1.5  | pF       | f=1MHz  |

Please obey the following conditions to ensure proper device operation and resetting. Input LED current (Recommended value):  $I_F \geq 5mA$  and  $\leq 30mA$ .  
Examples of resistance value to control LED forward current ( $I_F=5mA, INPUT VOLTAGE="E", RESISTORS="R"$ )  
"E"=3.3V,"R"=330 $\Omega$ ; "E"=5V,"R"=640 $\Omega$ ; "E"=12V,"R"=1.9K $\Omega$ ; "E"=15V,"R"=2.5K $\Omega$ ; "E"=24V,"R"=4.1K $\Omega$ ;

## Reference Data





单击下面可查看定价，库存，交付和生命周期等信息

[>>SUPSiC\(国晶微\)](#)