



New Parts: SiC PhotoMosRelay

Features

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

Applications

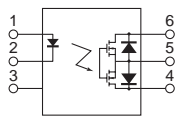
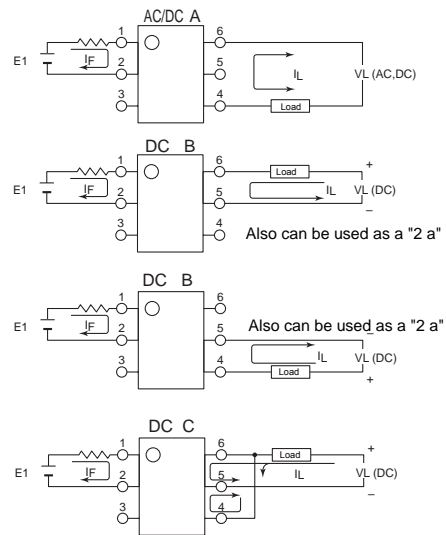
- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine Arc-Free with no snubbing circuits



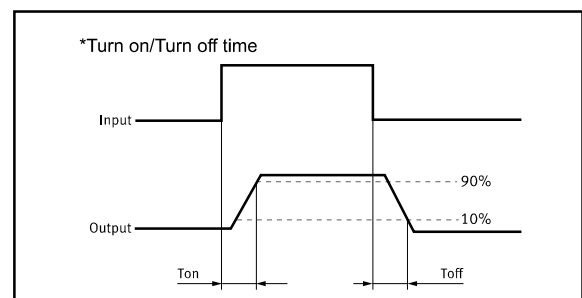
SMD-6



DIP-6



1. LED Anode
2. LED Cathode
4. Drain (MOS FET)
5. Source (MOS FET)
6. Drain (MOS FET)



TYPES

| Category | Output rating | | Package | Part No. | Packing quantity |
|----------|---------------|--------------|---------|------------|------------------|
| | Load voltage | Load current | | | |
| AC/DC | 1500V | 45mA | DIP6 | GAQV258AE | 50pcs/tube |
| | | | SMD6 | GAQV258AEH | 1000pcs/reel |

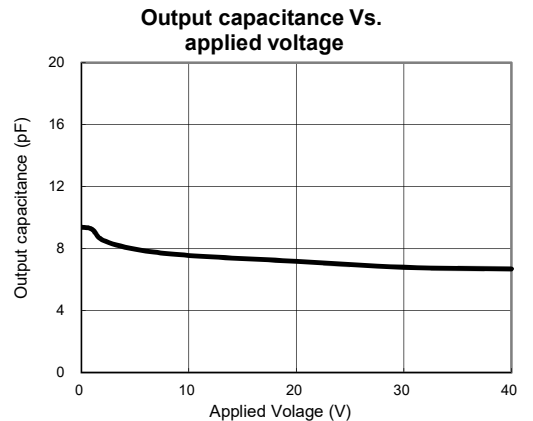
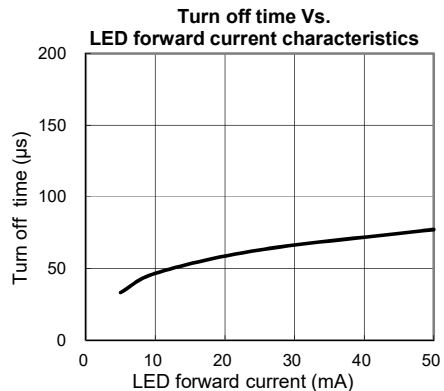
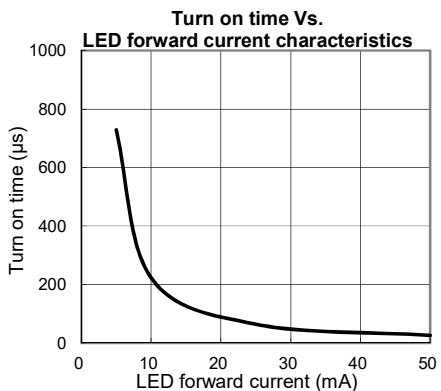
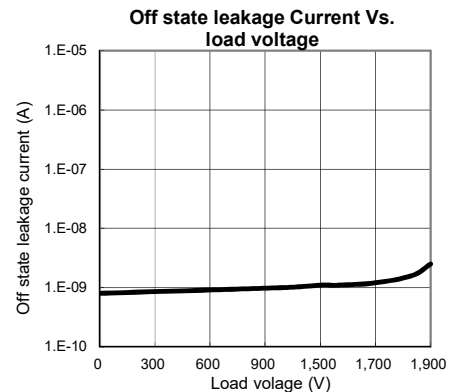
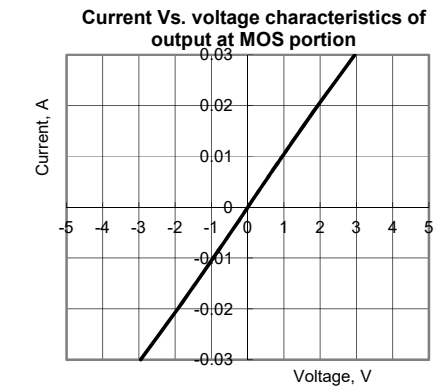
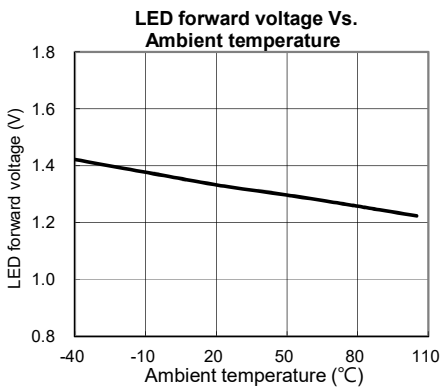
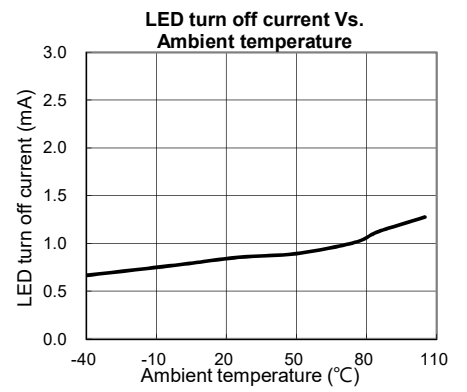
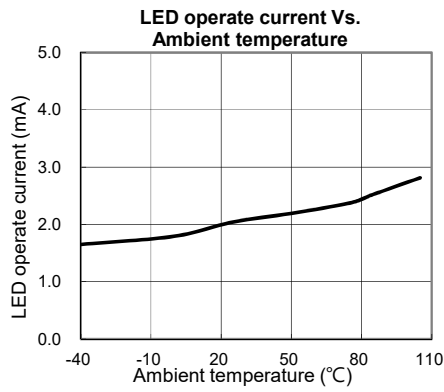
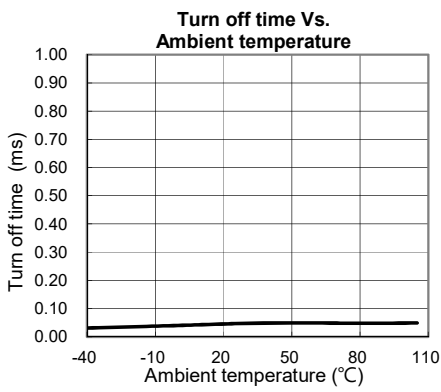
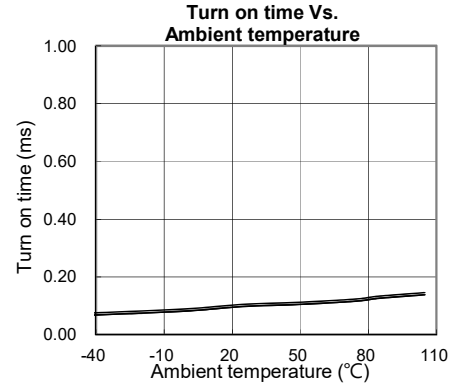
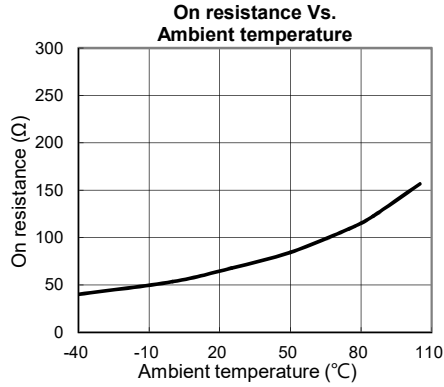
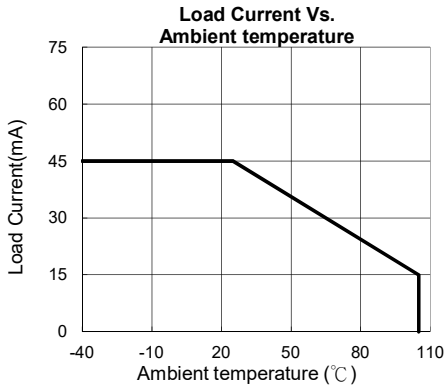
Absolute Maximum Ratings (Ambient Temperature: 25 °C)

| 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 | 1500 | V(AC peak or DC) | |
| | Load Current | I_L | 45 | mA | (A)V AC |
| | | | 50 | mA | (B)V AC |
| | | | 75 | mA | (C)V AC |
| | Peak Load Current | I_{Peak} | 500 | mA | 100ms(1 pulse) |
| Output Power Dissipation | P_{out} | 450 | mW | | |
| Total Power Dissipation | | P_T | 500 | 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 | 1.10 | 1.33 | 1.5 | V | $I_F=10mA$ |
| | Operation LED Current | $I_{F on}$ | | 2.0 | 5.0 | mA | |
| | Recovery LED Current | $I_{F off}$ | | 0.35 | 0.8 | mA | |
| | Recovery LED Voltage | $V_{F off}$ | 0.7 | 1.2 | | V | |
| Output | On-Resistance | R_{on} | 120 | 160 | 260 | Ω | $I_F=10mA, I_L= Rating,$ Time to flow is within 1 sec. |
| | Off-State Leakage Current | I_{Leak} | | | 1 | μA | $V_L=Rating$ |
| | Output Capacitance | C_{out} | | 10 | | pF | $V_L=0, f=1MHz$ |
| Transmission | Turn-On Time | T_{on} | | 0.08 | 0.15 | ms | $I_F=5mA, I_L=100mA,$ |
| | Turn-Off Time | T_{off} | | 0.05 | 0.15 | ms | |
| Coupled | I/O Isolation Resistance | $R_{I/O}$ | 10^{10} | | | Ω | DC500V |
| | I/O Capacitance | $C_{I/O}$ | | 0.8 | 1.3 | pF | f=1MHz |

Reference Data



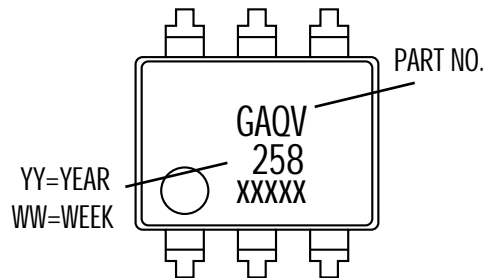
Dimensions

6-SMD

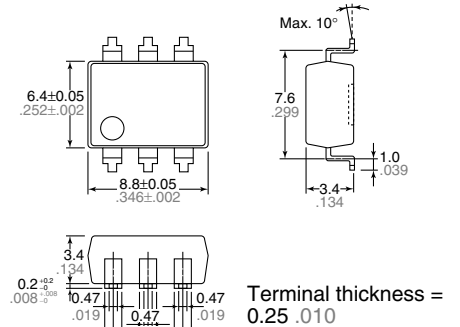


Dimensions

mm inch

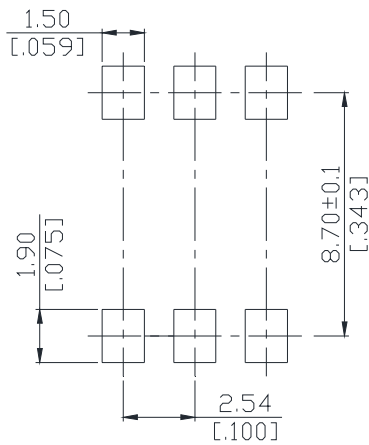


Surface mount terminal type



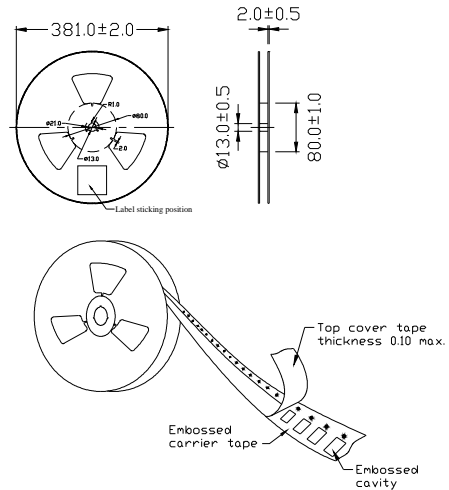
General tolerance: $\pm 0.1 \pm .004$

PC board pattern (Top view)

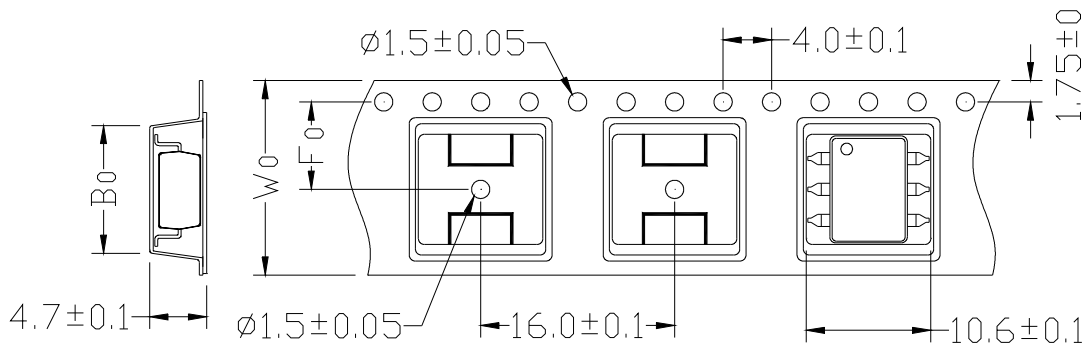


Unit : mm [inch]
Tolerance : ± 0.1

Tape dimensions



Dimensions of tape reel



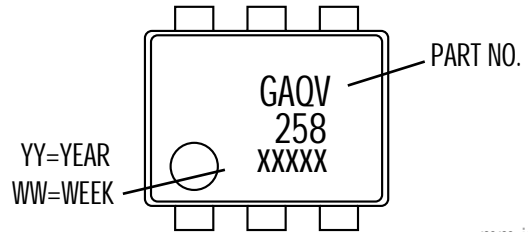
Unit: mm

| TYPE | B ₀ ± 0.1 | F ₀ ± 0.1 | W ₀ ± 0.1 | 13"REEL/PCS |
|------|--------------------------|--------------------------|--------------------------|-------------|
| 6P | 9.4 | 7.5 | 16 | 1000 |

Dimensions 6-DIP

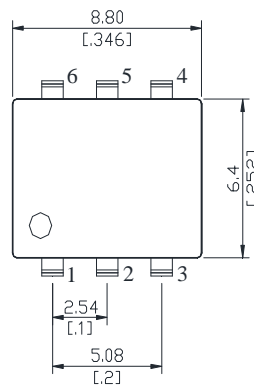
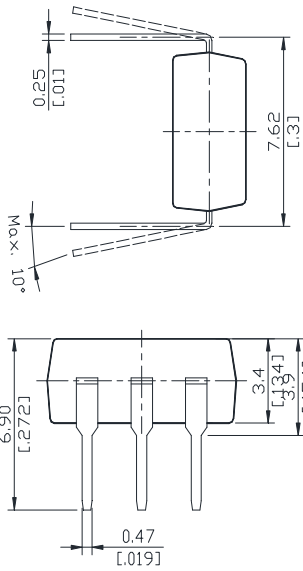


Dimensions



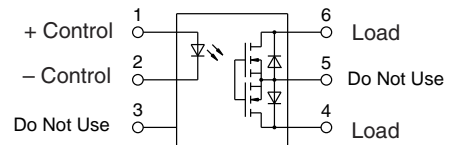
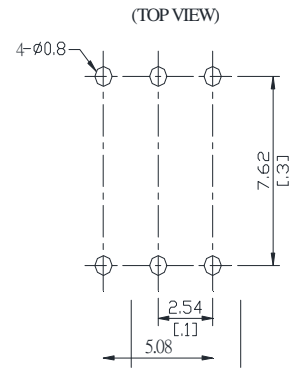
mm inch

Through hole terminal type



Unit : mm inch
Tolerance: +0.2 +.007

PC board patter



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.

