



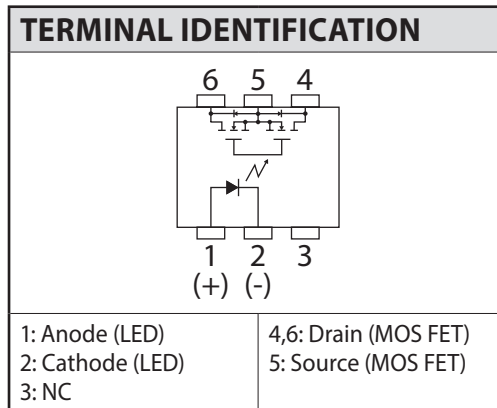
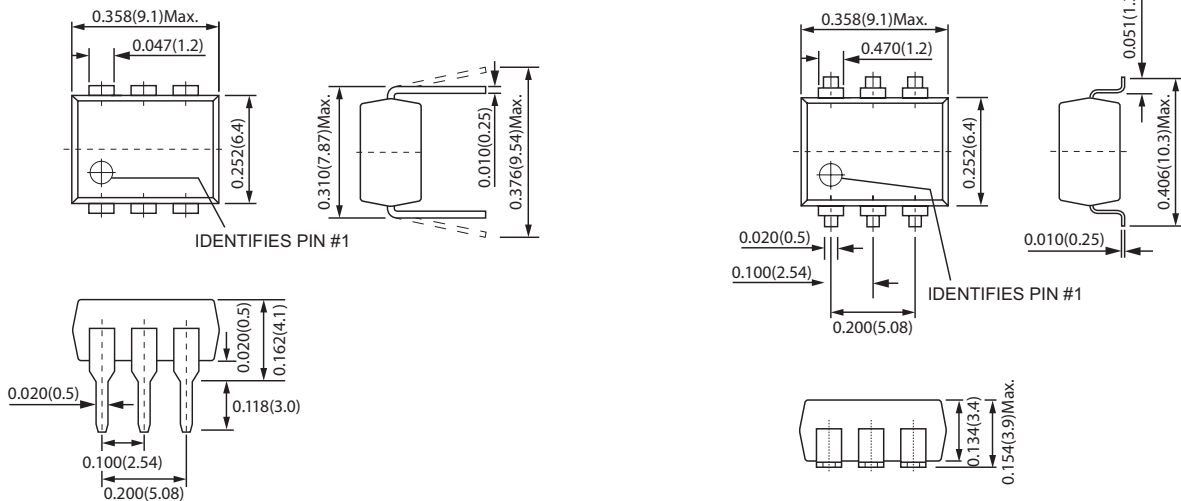
The PVG612 feature high current switching capability to 1.25A with a low on resistance of 0.15 Maximum. Designed for ATE, Controls, or Measurement and Instrumentation applications, the MOSRELAY® relay is capable of handling 60V load conditions.

Features

- Contact Form: 1-Form-A
- Load Voltage: 60V Maximum
- Operation LED Current: 5.0mA Maximum
- Load Current: 1.25A Maximum
- On-Resistance: 0.15 Maximum
- Low Off-State Leakage Current: 1.0uA Maximum
- I/O Breakdown Voltage: 2500Vrms Minimum

Applications

- Telecommunications
- Instrumentation
- Medical Equipment
- Industrial Controls
- Security



| Part No | Package | Tube | Tape and reel | Units/Box | Contact Form |
|--------------|---------|-------|---------------|-----------|---------------------------|
| PVG612PBF | DIP6 | 65pcs | | 1040pcs | |
| PVG612S-TPBF | SMD6 | | 1000pcs | 1000pcs | Picked from 1/2/3-pin sid |

MAXIMUM RATINGS (Ambient Temperature: 25°C)

| Parameters | Symbol | Units | Value |
|------------------------------|-------------------|-------------------|------------|
| INPUT SPECIFICATIONS | | | |
| Continuous LED Current | I _F | mA | 50 |
| Peak LED Current | I _{FP} | mA | 500 |
| LED Reverse Voltage | V _R | V | 5 |
| Input Power Dissipation | P _{in} | mW | 75 |
| OUTPUT SPECIFICATIONS | | | |
| Load Voltage | V _L | V (AC peak or DC) | 60 |
| Load Current | I _L | A | 1.25 |
| Peak Load Current | I _{Peak} | A | 2.0 |
| Output Power Dissipation | P _{Out} | mW | 450 |
| RELAY SPECIFICATIONS | | | |
| Total Power Dissipation | P _T | mW | 550 |
| I/O Breakdown Voltage | V _{I/O} | V _{Rms} | 2500 |
| Operating Temperature | T _{opr} | °C | -40 ~ +85 |
| Storage Temperature | T _{stg} | °C | -40 ~ +100 |

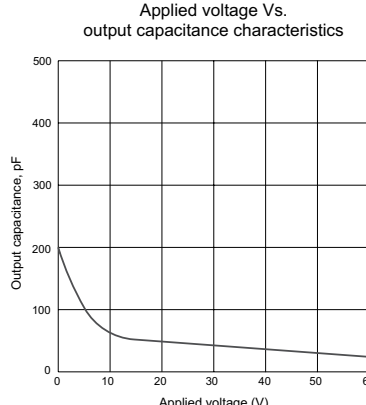
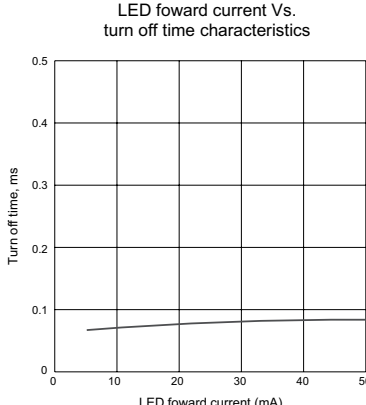
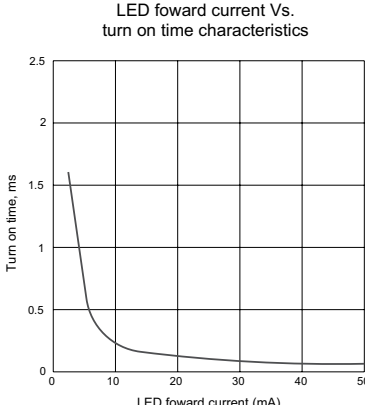
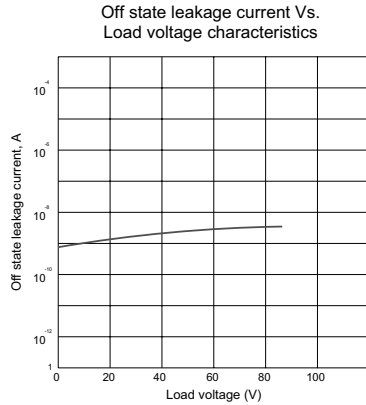
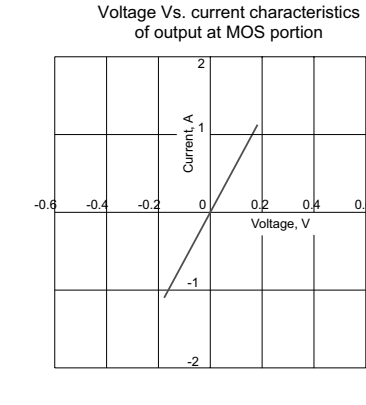
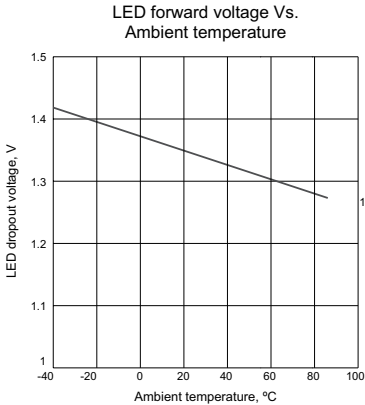
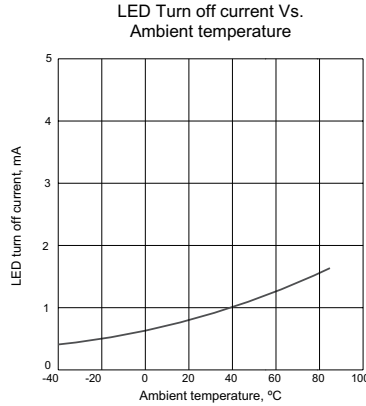
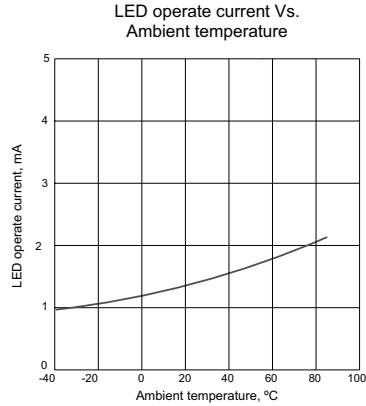
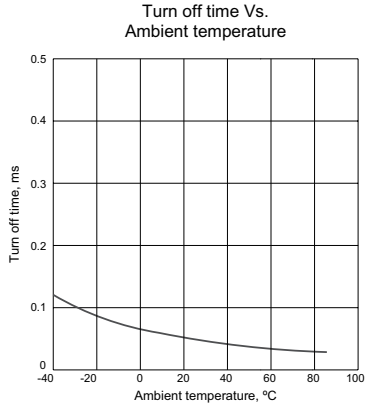
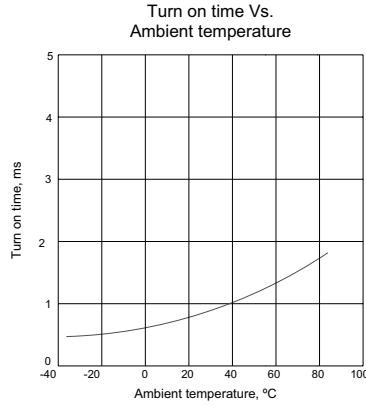
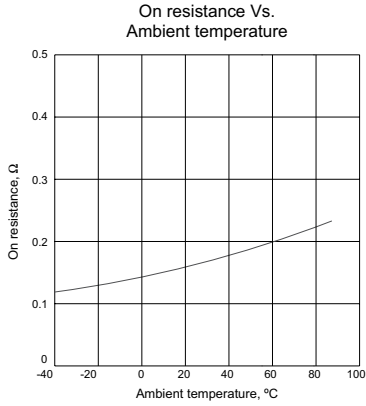
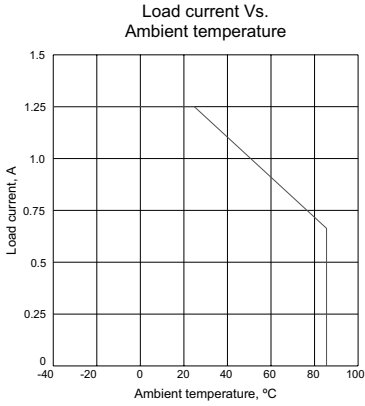
ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

| Parameters | Symbol | Test Conditions | Units | Min | Typ | Max |
|------------------------------|--------------------|--|-------|-----------------|------|-----|
| INPUT | | | | | | |
| LED Forward Voltage | V _F | I _F =10mA | V | 1.0 | 1.37 | 1.5 |
| Operation LED Current | I _{F On} | | mA | | 1.2 | 5.0 |
| Recovery LED Voltage | V _{F Off} | | V | 0.5 | | |
| OUTPUT | | | | | | |
| On-Resistance Drain to Drain | R _{On} | I _F =5mA, I _L =Rating Time to flow is within 1 sec. | Ω | | 0.15 | 0.5 |
| Off-State Leakage Current | I _{Leak} | V _L =60V | μA | | | 1.0 |
| Output Capacitance | C _{Out} | V _L =0V, f=1MHz | pF | | 190 | |
| TRANSMISSION | | | | | | |
| Turn-On Time | T _{On} | I _F =5mA, I _L =Rating | ms | | 0.6 | 5.0 |
| Turn-Off Time | T _{Off} | | ms | | 0.06 | 0.5 |
| COUPLED | | | | | | |
| I/O Insulation Resistance | R _{I/O} | | Ω | 10 ⁹ | | |
| I/O Capacitance | C _{I/O} | f=1MHz | pF | | 1.3 | |

Environmental Ratings:

Operating Temp: -40°C to +85° C; Storage Temp: – 40 to +100 C.

All electrical parameters measured at 25° C unless otherwise specified.



Manufacturing Information

Moisture Sensitivity



All plastic encapsulated semiconductor packages are susceptible to moisture ingress. MosRelay Integrated Circuits Division classifies its plastic encapsulated devices for moisture sensitivity according to the latest version of the joint industry standard, **IPC/JEDEC J-STD-020**, in force at the time of product evaluation. We test all of our products to the maximum conditions set forth in the standard, and guarantee proper operation our devices when handled according to the limitations and information in that standard as well as to any limitations forth in the information or standards referenced below.

Failure to adhere to the warnings or limitations as established by the listed specifications could result in reduced product performance, reduction of operable life, and/or reduction of overall reliability.

This product carries a Moisture Sensitivity Level (MSL) classification as shown below, and should be handled according to the requirements of the latest version of the joint industry standard **IPC/JEDEC J-STD-033**.

ESD Sensitivity



This product is **ESD Sensitive**, and should be handled according to the industry standard **JESD-625**.

Soldering Profile

Provided in the table below is the Classification Temperature (T_C) of this product and the maximum dwell time the body temperature of this device may be ($T_C - 5$)°C or greater. The classification temperature sets the Maximum Body Temperature allowed for this device during lead-free reflow processes. For through-hole devices, and any other processes, the guidelines of **J-STD-020** must be observed.

Board Wash

MosRelay Integrated Circuits Division recommends the use of no-clean flux formulations. Board washing to reduce or remove flux residue following the solder reflow process is acceptable provided proper precautions are taken to prevent damage to the device. These precautions include, but are not limited to: using a low pressure wash and providing a follow up bake cycle sufficient to remove any moisture trapped within the device due to the washing process. Due to the variability of the wash parameters used to clean the board, determination of the bake temperature and duration necessary to remove the moisture trapped within the package is the responsibility of the user (assembler). Cleaning or drying methods that employ ultrasonic energy may damage the device and should not be used. Additionally, the device must not be exposed to flux or solvents that are Chlorine- or Fluorine-based.

