

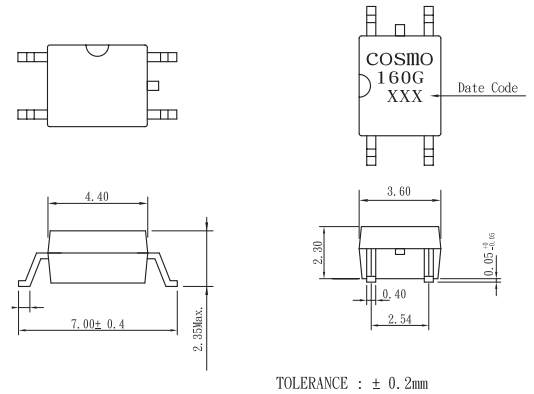
Features

1. Opaque type, mini-flat package.
2. Subminiature type
(The volume is smaller than that of our conventional DIP type by as far as 30%)
3. Isolation voltage between input and output (Viso:2500Vrms).

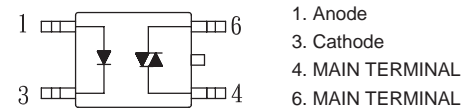
For 115/240 Vac (rms) Application:

1. Solenoid/Valve Controls.
2. Lighting Controls.
3. Static Power Switches.
4. AC Motor Drives.
5. Temperature Controls.
6. E.M. Contactors.
7. AC Motor Staters.
8. Solid State Relays.
9. Programmable controllers.

Outside Dimension:Unit (mm)



Schematic:Top View



Absolute Maximum Ratings

(Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|---------------------------------|--|-------------|-----------|
| Input | Forward current | IF | 50 mA |
| | Peak forward current (100us) | IFM | 1 A |
| | Reverse voltage | VR | 6 V |
| | Power dissipation | PD | 70 mW |
| Output | Off-State Output Terminal voltage | VDRM | 400 Vpeak |
| | On-State R. M. S. Current | IT(RMS) | 70 mA |
| | Peak Repetitive Surget Current (PW=10ms, DC 10%) | ITSM | 1 A |
| | Power dissipation | Pd | 150 mW |
| Total power dissipation | Ptot | 200 mW | |
| Isolation voltage 1 minute | Viso | 2500 | Vrms |
| Operating temperature | Topr | -40 to +100 | °C |
| Storage temperature | Tstg | -50 to +125 | °C |
| Soldering temperature 10 second | Tsol | 260 | °C |

Electro-optical Characteristics

(Ta=25°C)

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|--------------------------|--|------------|----------------------------|--------------------|------------------|--------|
| Input | Forward voltage | VF | | 1.2 | 1.4 | V |
| | Peak forward voltage | VFM | | | 3.5 | V |
| | Reverse Leakage Current | IR | VR=5V | | | 10 μA |
| Output | Peak Blocking Current | IDRM | | | 1.0 | nA |
| | ON-State Voltage | VTM | ITM=70mA | 1.6 | 2.8 | V |
| Transfer characteristics | Holding Current | IH | | 1.0 | | mA |
| | Critical rate of rise of OFF-state voltage | dV/dt | VDRM= (1/ 2) *Rated | 100 | 旻 | V/μS |
| | Isolation resistance | Riso | DC500V | 5x10 ¹⁰ | 10 ¹¹ | ohm |
| | Minimum trigger current | IFT | Main Terminal Voltage=3V | | 5 | 10 mA |
| | Tunr-on time | Ton | VD=6V, RL=100 ohm, IF=20mA | 旻 | | 100 μS |

Classification table of Trigger LED current is shown below.

($T_a=25^\circ\text{C}$)

| Classification | Trigger LED Current (mA) | |
|----------------|--------------------------|------|
| | Min. | Max. |
| 1 (Standard) | - | 10 |
| 2 | - | 7 |
| 3 | - | 5 |

Fig.1 Forward Current vs. Ambient Temperature

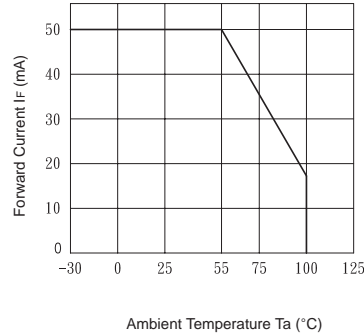


Fig.2 Diode Power Dissipation vs. Ambient Temperature

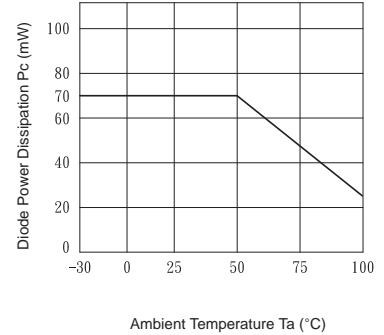


Fig.3 On-State R. M. S. Current vs. Ambient Temperature

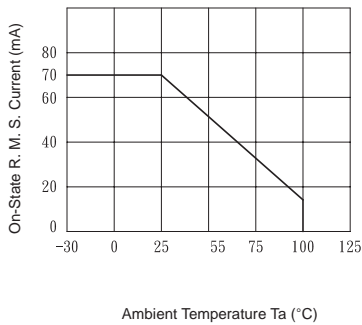


Fig.4 Total Power Dissipation vs. Ambient Temperature

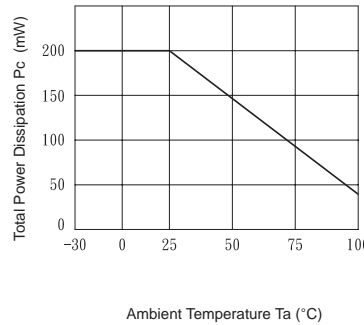


Fig.5 Peak Forward Current vs. Duty Ratio

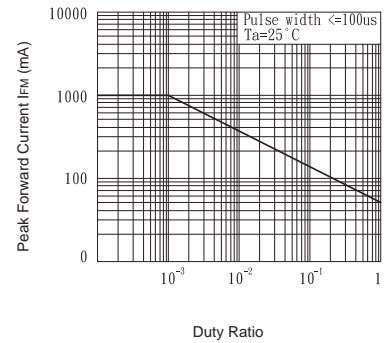


Fig.6 Forward Current vs. Forward Voltage

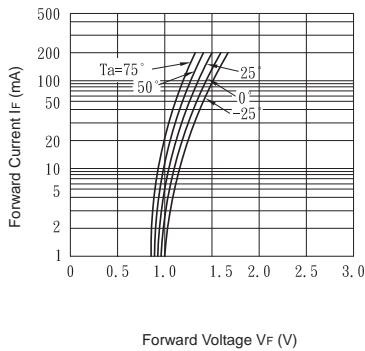


Fig.7 On-State Characteristics

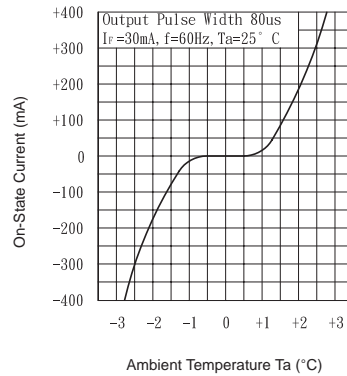


Fig.8 Leakage with LED off vs. Ambient Temperature

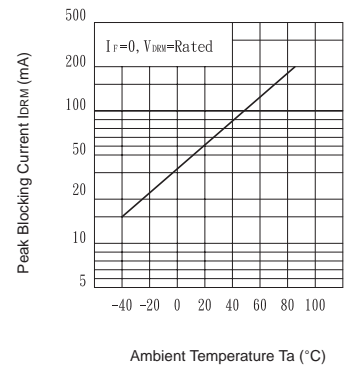


Fig.9 Trigger Current vs. Ambient Temperature

