

DESCRIPTION

PRODUCT COVERED:

USR - Double Protection Optical Isolator, Models 2381-1, may be followed by -F3, may be followed by -V; may be prefixed by PS.

MAXIMUM RATINGS (at nominal operating temperature):

| Model | Current (mA) | | Power (mW) | | Isolation Voltage | Max Operating (Ambient) Temp (°C) | Max Junction Temp (°C) | Max Storage Temp (°C) |
|--------|--------------|--------|------------|--------|-------------------|-----------------------------------|------------------------|-----------------------|
| | Emitter | Sensor | Emitter | Sensor | | | | |
| 2381-1 | 60 | 50 | 100 | 150 | 5000 | 115 | 125 | 125 |

GENERAL:

These devices are photocoupled isolators consisting of a photo-emitter such as a light emitting diode, optically coupled to a photo-sensor, such as a transistor. The emitter and sensor are separated by an insulating window. Internal "chips" are connected to lead frames that are molded into the enclosure.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fourth Edition, including revisions through May 10, 2000.

Conditions of Acceptability - Each device shall be reviewed with respect to the following conditions of acceptability:

1. The capability of the device to control a load has not been investigated.
2. These devices should be installed in a suitable end product enclosure.
3. The maximum operating (ambient) temperature, as noted in the ratings table, shall not be exceeded.
4. For single protection devices, the insulation to the case has not been evaluated. For double protection devices, the insulation to the case has been evaluated to the isolation voltage specified in the ratings table.
5. In addition to meeting single protection requirements, double protection optical isolators have also been investigated for use in up to 250 V, 50/60 Hz circuits in audio, video, and similar equipment in applications in which breakdown of the optical isolator may result in a risk of fire, electrical shock, or injury to persons.

CONSTRUCTION DETAILS:

General - The product shall be constructed in accordance with the following description. All dimensions are approximate, unless specified as "max" or "min".