

DESCRIPTION

PT6959 is an LED Controller driven on a 1/4 to 1/7 duty factor. Fourteen to eleven segment output lines, 4 to 7 grid output lines, one display memory, control circuit are all incorporated into a single chip to build a highly reliable peripheral device for a single chip microcomputer. Serial data is fed to PT6959 via a three-line serial interface. Housed in a 28-pin SOP, PT6959's pin assignments and application circuit are optimized for easy PCB Layout and cost saving advantages.

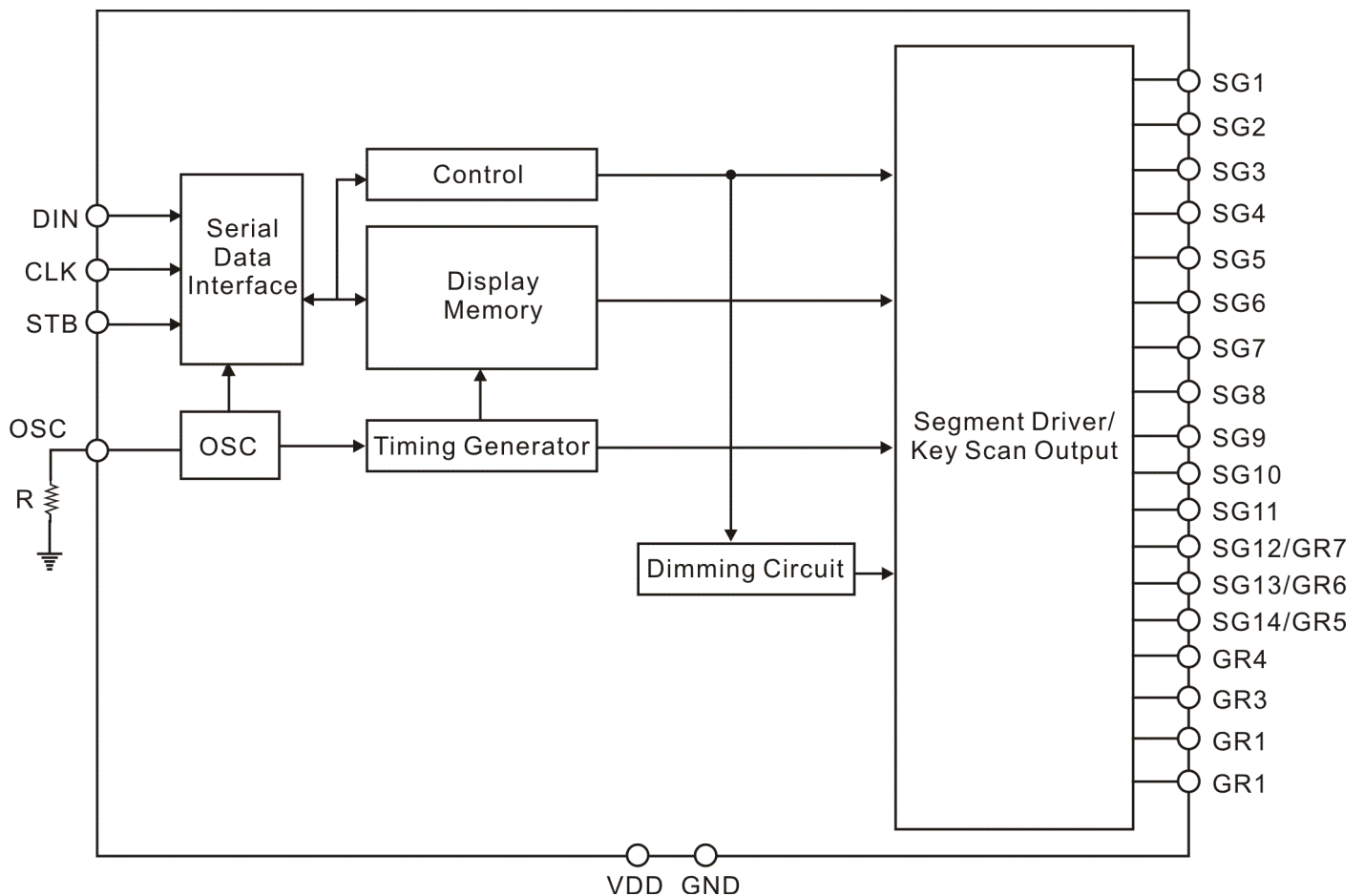
FEATURES

- CMOS technology
- Low power consumption
- 8-step dimming circuitry
- Serial interface for clock, data input, strobe pins
- Available in 28-pin, SOP

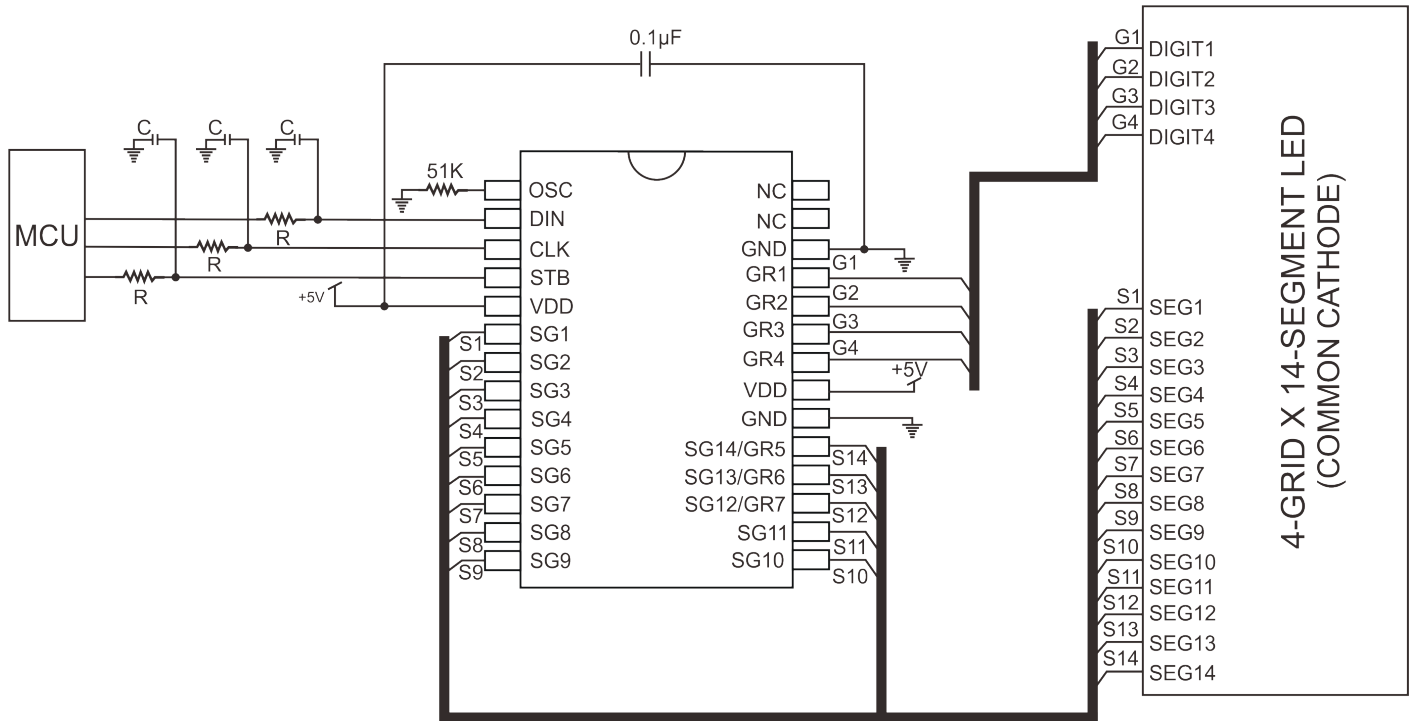
APPLICATION

- Microcomputer peripheral devices

BLOCK DIAGRAM



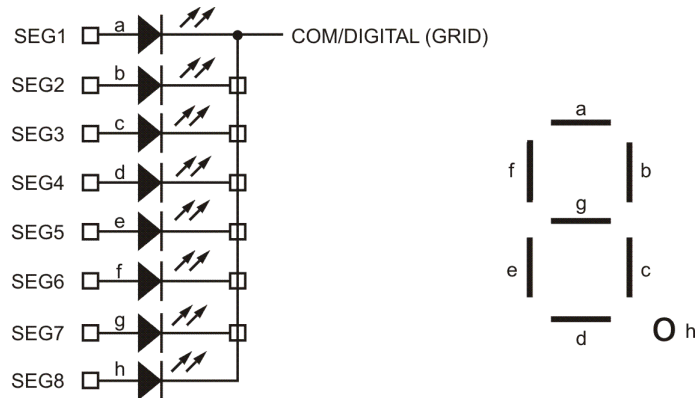
APPLICATION CIRCUIT



Notes:

1. The capacitor (0.1µF) connected between the GND and VDD Pins must be located as near as possible to the PT6959 chip.
2. The PT6959 power supply is separate from the application system power supply.

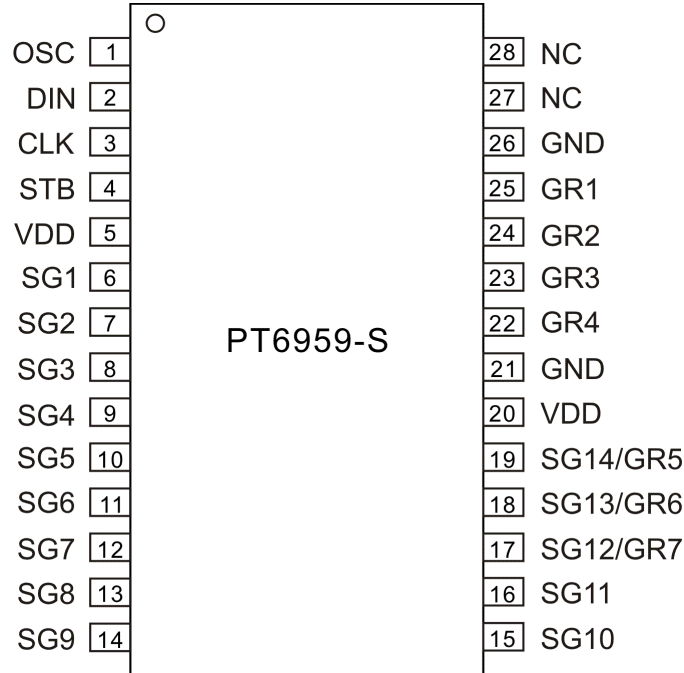
COMMON CATHODE TYPE LED PANEL



ORDER INFORMATION

| Valid Part Number | Package Type | Top Code |
|-------------------|---------------------|----------|
| PT6959-S | 28-pin, SOP, 300mil | PT6959-S |

PIN CONFIGURATION



PIN DESCRIPTION

| Pin Name | I/O | Description | Pin No. |
|---------------------|-----|--|---------|
| OSC | I | Oscillator input pin A resistor is connected to this pin to determine the oscillation frequency. | 1 |
| DIN | I | Data input pin This pin inputs serial data at the rising edge of the shift clock (starting from the lower bit). | 2 |
| CLK | I | Clock input pin This pin reads serial data at the rising edge. | 3 |
| STB | I | Serial interface strobe pin The data input after the STB has fallen is processed as a command. When this pin is "HIGH", CLK is ignored. | 4 |
| VDD | - | Power supply | 5, 20 |
| SG1 ~ SG11 | O | Segment output pins (p-channel, open drain) | 6 ~ 16 |
| SG12/GR7 ~ SG14/GR5 | O | Segment output pin/Grid output pin (CMOS output) | 17 ~ 19 |
| GND | - | Ground pin | 21, 26 |
| GR4 ~ GR1 | O | Grid output pins (n-channel, open drain) | 22 ~ 25 |
| NC | - | No connection | 27, 28 |

IMPORTANT NOTICE

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and to discontinue any product without notice at any time.

PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

Princeton Technology Corp.
2F, 233-1, Baociao Road,
Sindian Dist., New Taipei City 23145, Taiwan
Tel : 886-2-66296288
Fax: 886-2-29174598
<http://www.princeton.com.tw>