MY-Semi

Preliminary

MY9168

16-Channel Constant Current LED Driver With Ghost Image Abatement

General Description

The MY9168 16-channel constant current LED driver with ghost image abatement is suitable for multiplexing display system. The device has wide supply voltage range (3.3V ~ 5.0V) and provides 16 open-drain constant current sinking outputs that are rated to 16V and delivers up to 55mA of high accuracy current to each string of LED. The current at each output is programmable by means of an external current-sensing resistor. The MY9168 features a fast 30MHz DCK input, allowing a wide LED dimming (on/off) range to be implemented. The MY9168 offers a 4-wire serial interface, a 16-bit shift register, and a 16-bit transparent latch. The serial interface allows a microcontroller to configure the output channels using four inputs (DI, DCK, LAT, and ENB) and a data output (DO). DO allows multiple drivers to be cascaded and operated together.

The MY9168's on-board pass elements minimize the need for external components, while at the same time, providing ±3%(max.) LED current accuracy. Additional features include a ±0.1% regulated output current capability and fast output transient response.

The MY9168 is available in a 24-pin SOP/SSOP/QFN package and specified over the -40°C to +85°C ambient temperature range.

Features

- 3.3V ~ 5.0V Operating supply voltage (±10%)
- 3~55mA/5V Constant current output range
- 3~35mA/3.3V Constant current output range
- 16V Rated output channels for long LED strings
- ±3% (max.) Current accuracy between channels
- ±3% (max.) Current accuracy between chips
- ±0.1% Output current regulation capability
- 30MHz Clock frequency for data transfer
- Current setting by one external resister
- Schmitt trigger input
- Power on reset
- Stagger output delay
- Fast current transient response
- Ghost image abatement
- Low knee voltage for constant current
- High level HBM ESD protection (Iout pin > 8000V)
- -40°C to +85°C Ambient temperature range

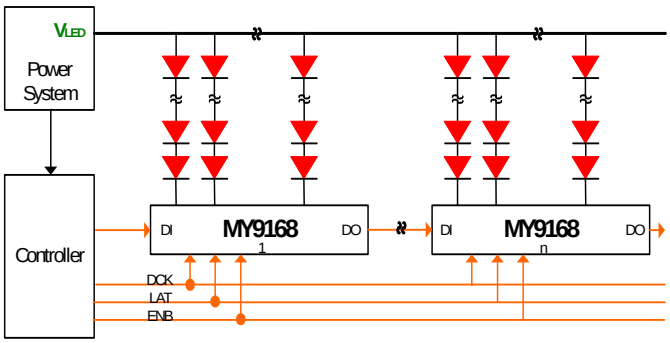
Applications

- Indoor and Outdoor LED Video Displays
- Variable Message Sign (VMS)
- Dot Matrix Module
- Architectural and Decorative Lighting
- Industrial Lighting
- LCD Display Backlighting

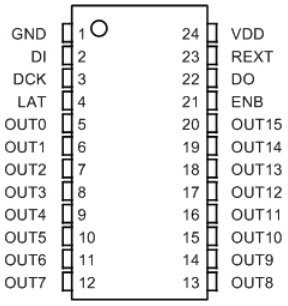
Order information

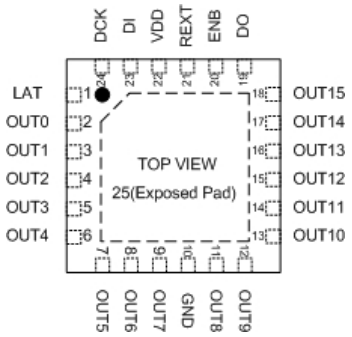
Part	Package Information	
MY9168SA	SOP24-236mil-1.0mm	2000 pcs/Reel
MY9168SS	SSOP24-150mil-0.635mm	2500 pcs/Reel
MY9168QF	QFN24-4mmx4mm-0.5mm	3000 pcs/Reel

Typical Operating Circuits



Pin Configuration





For pricing, delivery, and ordering information, pleases contact MY-Semi Inc. at +886-3-560-1668, or email to INFO@MY-Semi.com.tw or visit MY-Semi's website at www.MY-Semi.com.tw