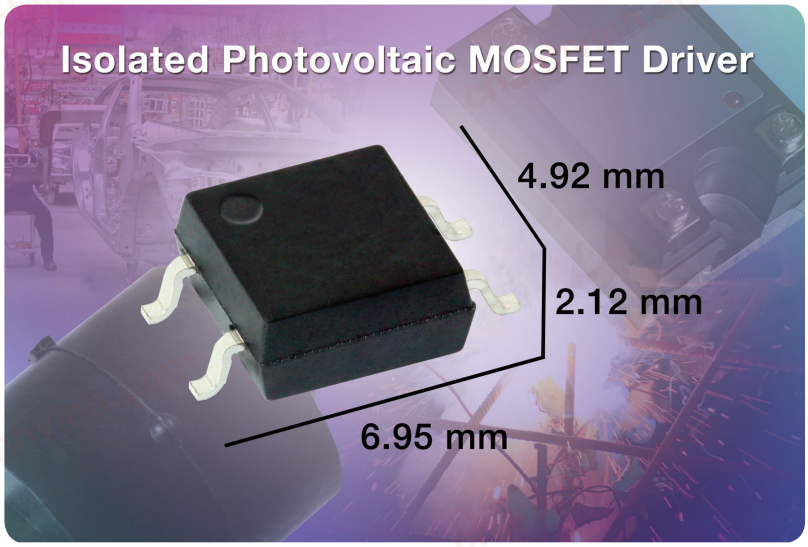
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OPTOCOUPLER

VOM1271

Photovoltaic MOSFET Driver with Integrated Fast Turn-Off



Vishay's new VOM1271 isolated photovoltaic MOSFET driver with integrated turnoff circuit is packaged in the space-saving surface-mount SOP-4. Eliminating the need for an external power supply, the VOM1271 simplifies the task of driving a wide variety of power MOSFETs. Used in industrial electrical and electromechanical applications, the VOM1271 greatly reduces implementation cost and PCB space usage, while increasing overall system reliability and performance with its solid-state design.

KEY BENEFITS

- Small SOP-4 footprint
- Integrated fast turn-off circuit
- No need for external secondary V_{CC}

APPLICATIONS

- High-voltage and/or high-current MOSFET SSR implementations
- Solid-state solenoid drivers
- Industrial control MOSFET drive applications

RESOURCES

- Datasheet: VOM1271 - http://www.vishay.com/doc?83469
- Optocoupler product portfolio http://www.vishay.com/optocouplers/
- Technical support: optocoupleranswers@vishay.com
- Sales contacts: http://www.vishay.com/doc?99914
- Material categorization: For definitions of compliance please see http://www.vishay.com/doc?99912

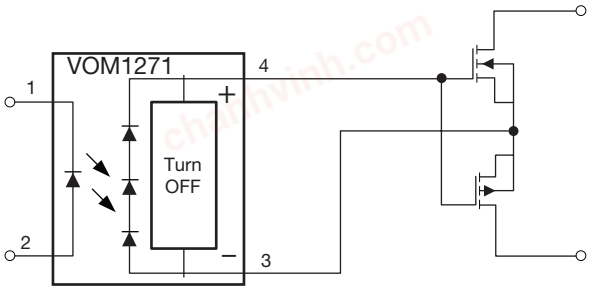
Pb-free RoHS COMPLIANT

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components

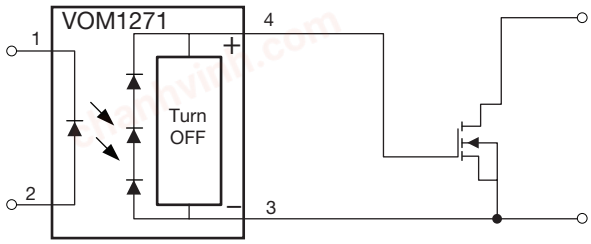
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APPLICATION CIRCUITS



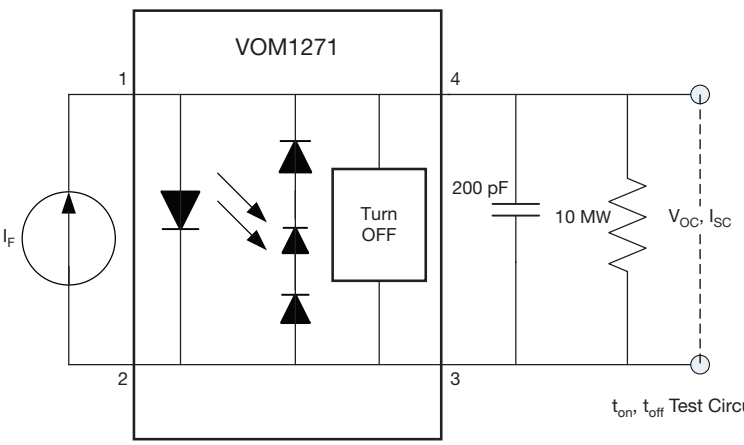
Bidirectional MOSFET Driver Application

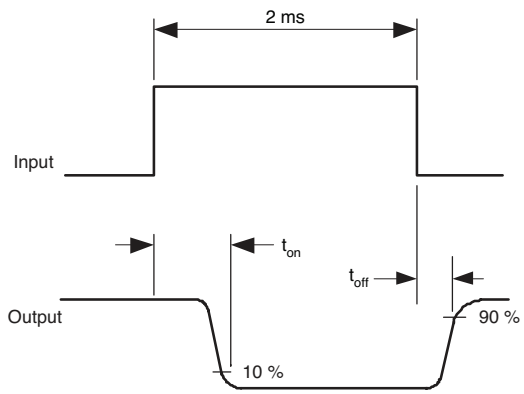


Single MOSFET Driver Application

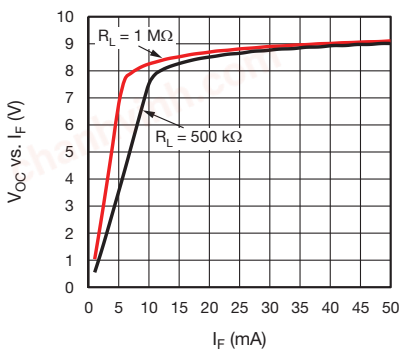
VOM1271 KEY PERFORMANCE DATA

SWITCHING CHARACTERISTICS (T_{amb} = 25 °C, UNLESS OTHERWISE SPECIFIED)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Turn-on time	C_L = 200 pF, I_F = 20 mA, P_W = 2 ms, duty cycle = 50 %	t_{on}		53		µs
Turn-off time		t_{off}		24		µs

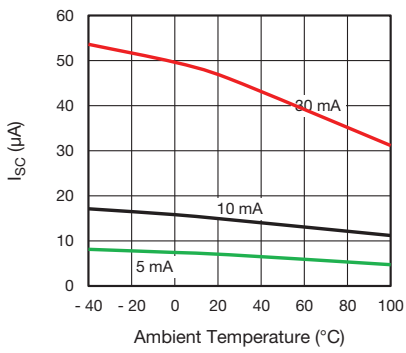




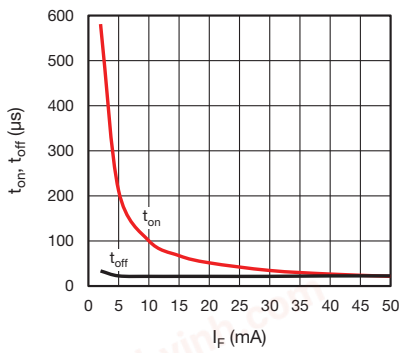
t_{on}, t_{off} Test Circuit and Waveform



Output Open Circuit Voltage vs. LED Current



Output Short-Circuit Current vs. Ambient Temperature



t_{on}, t_{off} vs. LED Current

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