



OPTOCOUPLERS

VOM3052, VOM3053
VOM160N, VOM160P, VOM160R

Non-Zero Crossing in Phototriac Optocouplers SOP-4 Package



FEATURES

- Compact SOP-4 surface-mount device
- Low trigger current options of 5 mA, 7 mA, and 10 mA
- 1.5 kV/ μ s and 0.5 kV/ μ s of dV/dt

BENEFITS

- Saves more than 66 % board space compared to a DIP-6 SMD
- Low trigger interfaces with digital logic
- High dV/dt allows for the reduction or exclusion of external snubber

APPLICATIONS

- Consumer Appliances
 - Refrigerators, washers
 - Air conditioners
 - Vacuum cleaners
 - Coffee makers, rice cookers
- Industrial Control
 - AC solid-state relays
 - Motor control
 - PLC control
 - Security alarm systems

RESOURCES

- Datasheets: VOM305x <http://www.vishay.com/doc?83492>, VOM160x <http://www.vishay.com/doc?81349>
- Optocoupler product portfolio: <http://www.vishay.com/optocouplers/>
- Sales contacts: <http://www.vishay.com/doc?99914>
- Application notes: <http://www.vishay.com/optocouplers/opto-triac/related/#appnot>
- Technical support: optocoupleranswers@vishay.com
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



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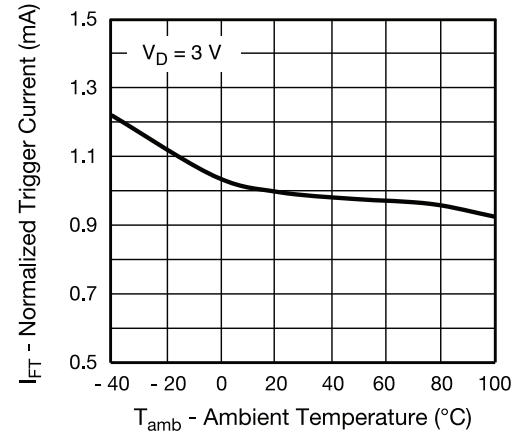
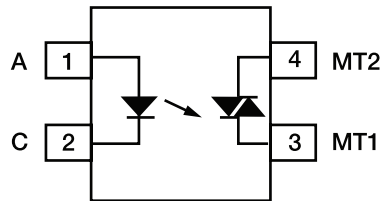
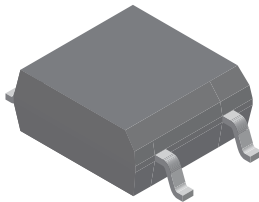


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SAFETY AGENCY

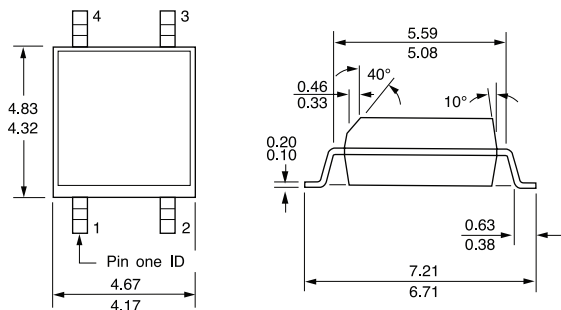
- UL1577 (pending)
- cUL (pending)
- VDE DIN EN 60747-5-5 (pending)



FOOTPRINT COMPARISON

| SYMBOL (UNIT) | I _{FT} | dV/dt | dV / dt _{COM} | V _{DRM} | V _{ISO} | I _H | I _{TM} | V _{TM} | T _{amb} |
|-------------------------|-----------------|---|-------------------------|------------------------------|------------------------|-----------------------|----------------------|------------------------|-----------------------|
| Parameter | Trigger Current | Critical Rate of Rise Off-state Voltage (min) | Commutating dV/dt (typ) | Peak Off-state Voltage (max) | Isolation Test Voltage | Holding Current (typ) | PRM On-state Current | On State Voltage (max) | Operating Temperature |
| VOM3053 | 5 mA | 1500 V/μs | 0.13 μs | 600 V | 3750 V _{RMS} | 290 μA | 70 mA | 3 V | - 40 °C to 100 °C |
| VOM3052 | 10 mA | | | | | | | | |
| VOM160N | 5 mA | 500 V/μs | | | | | | | |
| VOM160P | 7 mA | | | | | | | | |
| VOM160R | 10 mA | | | | | | | | |

PACKAGE DIMENSIONS



FOOTPRINT

SOP-4 package offers smaller footprint compared to DIP-6 package. It saves more than 66% board space compared to a DIP-6 SMD package.

