



OPTOCOUPLERS

VO4154 / 4156 / 4157 / 4158
VO4254 / 4256 / 4257 / 4258



A New Family of Phototriacs with a dV/dt of 5 kV/ μ s

FEATURES

- dV/dt of 5 kV/ μ s
- Trigger current (I_{FT}) of 1.6, 2.0, and 3.0 mA
- Zero-crossing and non-zero-crossing function
- Blocking voltage (V_{DRM}) up to 800 V
- Ambient operating temperature from $-40\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$

BENEFITS

- Meets IEC1000-4-4 transient requirements
- Complements Vishay's existing 10 kV/ μ s phototriac family
- Low trigger current enables direct interface with microcontroller output and digital logic
- High dV/dt performance eliminates/reduces snubber circuit
- Compliant in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

Datasheet is available on our web site at www.vishay.com
<http://www.vishay.com/doc?84634>, <http://www.vishay.com/doc?84635>,
<http://www.vishay.com/doc?84797>, <http://www.vishay.com/doc?84798>

SAFETY

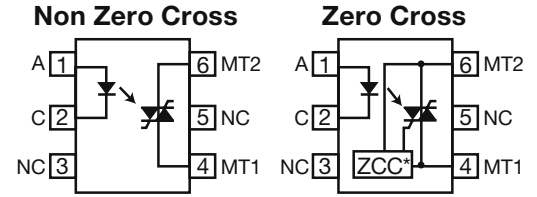
- Reinforced insulation rating per IEC60950 2.10.5.1
- IEC60747-5-2 (VDE0884) available with option 1
- Certified by key international safety regulatory agencies such as UL, CUL, and VDE
- Isolation test voltage 5300 V_{RMS}

APPLICATIONS

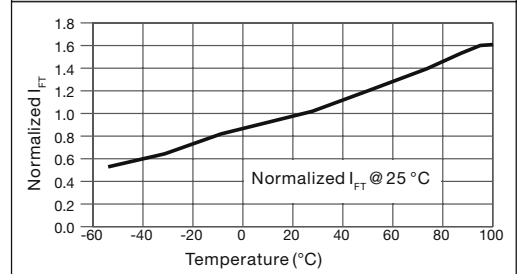
- Solid state relays
- AC motor drives / triac drive
- Temperature / lighting controls
- Solenoid / valve controls
- Switching power supplies

INDUSTRY LEADING I_{FT} PERFORMANCE

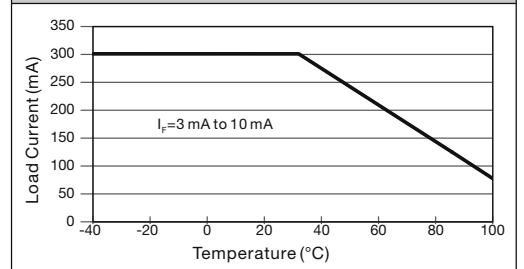
The new VO phototriac series offers the industry's lowest triggering current of 1.6 mA in combination with a new class of 5 kV/ μ s dV/dt performance. The low trigger current enables designers to directly interface with micro controllers and digital circuits. This new family complements Vishay's own industry leading 10 kV/ μ s dV/dt family of phototriacs.



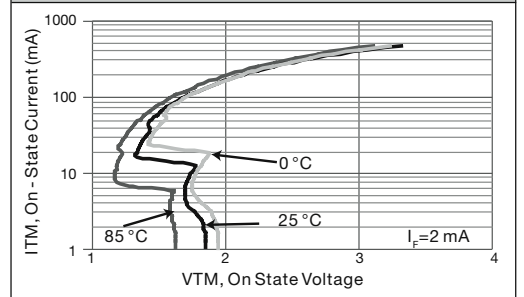
Normalized Trigger Current vs. Temperature



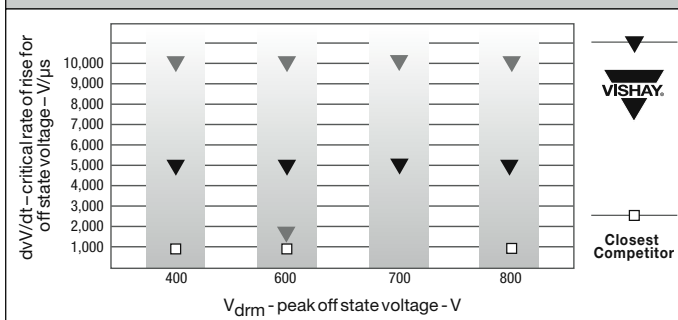
Recommended Operating Condition



Output on Current (ITM) vs. Voltage



Critical Rate of Rise of OFF State Voltage vs. Peak OFF State Voltage



The DIP-6 package has multiple options that can be added from a variety of lead forms to the IEC60747-5-2 (VDE0884) electrical test. For detailed ordering information, please visit the Vishay website www.vishay.com/ optocouplers and look for the options information document.

I _{FT} , Trigger Current	Crossing Type	400 V	600 V	700 V	800 V
1.6 mA	ZC	VO4154D	VO4156D	VO4157D	VO4158D
	NZC	VO4254D	VO4256D	VO4257D	VO4258D
2 mA	ZC	VO4254H	VO4256H	VO4157H	VO4158H
	NZC	VO4254H	VO4256H	VO4257H	VO4258H
3 mA	ZC	VO4154M	VO4156M	VO4157M	VO4158M
	NZC	VO4254M	VO4256M	VO4257M	VO4258M

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