



# 6-Pin DIP Zero-Cross Optoisolators Triac Driver Output (600 Volts Peak)

The MOC3061, MOC3062 and MOC3063 devices consist of gallium arsenide infrared emitting diodes optically coupled to monolithic silicon detectors performing the functions of Zero Voltage Crossing bilateral triac drivers.

They are designed for use with a triac in the interface of logic systems to equipment powered from 115/240 Vac lines, such as solid-state relays, industrial controls, motors, solenoids and consumer appliances, etc.

- Simplifies Logic Control of 115/240 Vac Power
- Zero Voltage Crossing
- dv/dt of 1500 V/μs Typical, 600 V/μs Guaranteed
- **To order devices that are tested and marked per VDE 0884 requirements, the suffix "V" must be included at end of part number. VDE 0884 is a test option.**

### Recommended for 115/240 Vac(rms) Applications:

- Solenoid/Valve Controls
- Lighting Controls
- Static Power Switches
- AC Motor Drives
- Temperature Controls
- E.M. Contactors
- AC Motor Starters
- Solid State Relays

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
--------	--------	-------	------

#### INFRARED EMITTING DIODE

Reverse Voltage	$V_R$	6	Volts
Forward Current — Continuous	$I_F$	60	mA
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Negligible Power in Output Driver Derate above $25^\circ\text{C}$	$P_D$	120	mW
		1.41	mW/°C

#### OUTPUT DRIVER

Off-State Output Terminal Voltage	$V_{DRM}$	600	Volts
Peak Repetitive Surge Current (PW = 100 μs, 120 pps)	$I_{TSM}$	1	A
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	150	mW
		1.76	mW/°C

#### TOTAL DEVICE

Isolation Surge Voltage <sup>(1)</sup> (Peak ac Voltage, 60 Hz, 1 Second Duration)	$V_{ISO}$	7500	Vac(pk)
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	250	mW
		2.94	mW/°C
Junction Temperature Range	$T_J$	-40 to +100	°C
Ambient Operating Temperature Range <sup>(2)</sup>	$T_A$	-40 to +85	°C
Storage Temperature Range <sup>(2)</sup>	$T_{stg}$	-40 to +150	°C
Soldering Temperature (10 s)	$T_L$	260	°C

1. Isolation surge voltage,  $V_{ISO}$ , is an internal device dielectric breakdown rating.

For this test, Pins 1 and 2 are common, and Pins 4, 5 and 6 are common.

2. Refer to Quality and Reliability Section in Opto Data Book for information on test conditions.

Preferred devices are Motorola recommended choices for future use and best overall value.

GlobalOptoisolator is a trademark of Motorola, Inc.

**(Replaces MOC3060/D)**

**MOC3061**

[IFT = 15 mA Max]

**MOC3062**

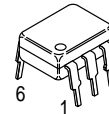
[IFT = 10 mA Max]

**MOC3063\***

[IFT = 5 mA Max]

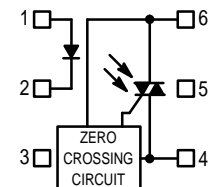
\*Motorola Preferred Device

### STYLE 6 PLASTIC



STANDARD THRU HOLE  
CASE 730A-04

### COUPLER SCHEMATIC



1. ANODE
2. CATHODE
3. NC
4. MAIN TERMINAL
5. SUBSTRATE  
DO NOT CONNECT
6. MAIN TERMINAL

