

# PRODUCT SPECIFICATION

DATE:03/23/2004

<b>cosmo</b> ELECTRONICS CORPORATION	Photocoupler : <b>KMOC3062</b>	NO.60P42004	REV.
		SHEET 1 OF 6	2

## Zero Crossing Optoisolators TRIAC

Driver Output (600V Volts Peak)

### ●Features

1. Compact dual-in-line package.
2. 600V peak blocking voltage.
3. Isolation voltage between input and output (Viso:5000Vrms).

### ●For 115/240 Vac(rms) Application:

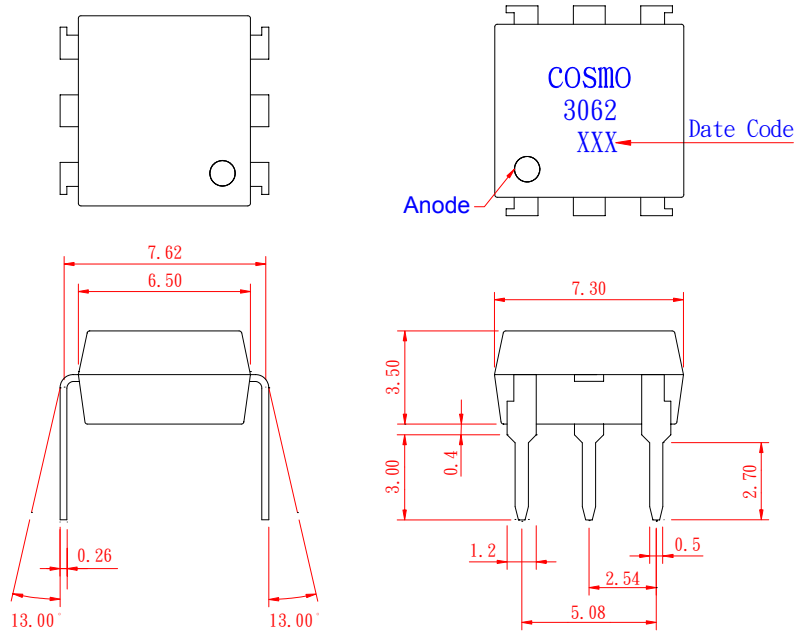
1. Solenoid/Valve Controls.
2. Lighting Controls.
3. Static Power Switches.
4. AC Motor Drives.
5. Temperature Controls.
6. E.M. Contactors.
7. AC Motor Staters.
8. Solid State Relays.
9. Programmable controllers.

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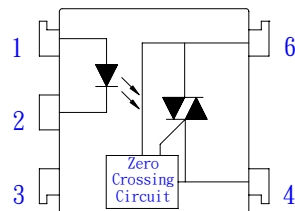
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## 1. OUTSIDE DIMENSION : UNIT (mm)



TOLERANCE :  $\pm 0.2\text{mm}$

## 2. SCHEMATIC : TOP VIEW



- 1. Anode
- 2. Cathode
- 3. NC
- 4. Main Terminal
- 6. Main Terminal

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## ●Absolute Maximum Ratings

	Parameter	Symbol	Rating	Unit
Input	Forward current	I <sub>F</sub>	50	mA
	Peak forward current	I <sub>FM</sub>	1	A
	Reverse voltage	V <sub>R</sub>	6	V
	Power dissipation	P <sub>D</sub>	70	mW
Output	Off-State Output Terminal voltage	V <sub>DRM</sub>	600	V <sub>PEAK</sub>
	Peak Repetitive Surget Current (PW=10ms.DC 10%)	I <sub>TSM</sub>	1	A
	Power dissipation	P <sub>D</sub>	300	mW
	Total power dissipation	P <sub>tot</sub>	330	mW
	Isolation voltage 1 minute	V <sub>iso</sub>	5000	V <sub>rms</sub>
	Operating temperature	T <sub>opr</sub>	-40 to +80	°C
	Storage temperature	T <sub>stg</sub>	-40 to +125	°C
	Soldering temperature 10 second	T <sub>sol</sub>	260	°C

## ●Electro-optical Characteristics

	Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	-	1.2	1.4	V
	Reverse current	I <sub>R</sub>	V <sub>R</sub> =4V	-	-	10	uA
Output	Peak Blocking Current	I <sub>DRM</sub>	V <sub>DRM</sub> =600V	-	60	500	nA
	ON-State Voltage	V <sub>TM</sub>	I <sub>TM</sub> =100mA	-	1.8	3	V
Transfer characteristics	Holding Current	I <sub>H</sub>		-	100	-	uA
	Critical rate of rise of OFF-state voltage	dV/dt	V <sub>DRM</sub> =(1/√2)*Rated	600	-	-	V/uS
	Inhibit Voltage(MT1-MT2 Voltage above which device not trigger)	V <sub>INH</sub>	I <sub>F</sub> = Rated I <sub>FT</sub>	-	5	20	V
	Leakage in Inhibited State	I <sub>DRM2</sub>	I <sub>F</sub> =Rated I <sub>FT</sub> ,Rated V <sub>DRM</sub> ,Off State	-	-	500	uA
	Isolation resistance	R <sub>iso</sub>	DC500V	5x10 <sup>10</sup>	10 <sup>11</sup>	-	ohm
	Minimum trigger current	I <sub>FT</sub>	Main Terminal Voltage=3V	-	-	10	mA

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Fig.1 Forward Current vs. Ambient Temperature

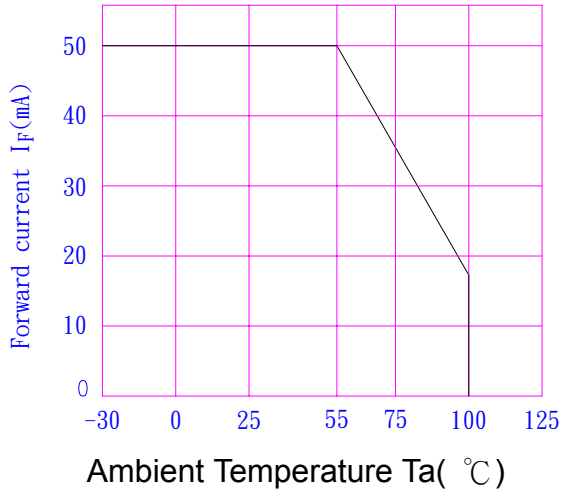


Fig.2 Diode Power Dissipation vs. Ambient Temperature

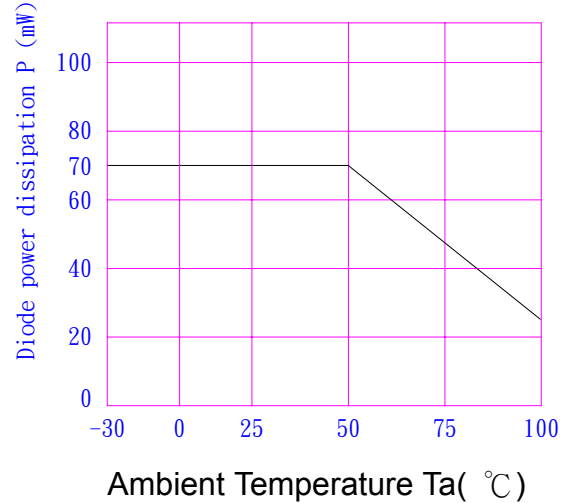


Fig.3 On-State R.M.S. Current vs. Ambient Temperature

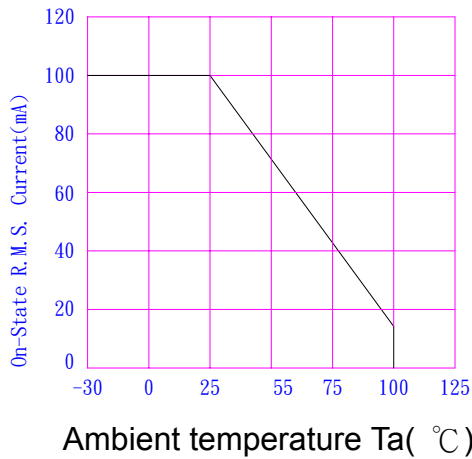


Fig.4 Total Power Dissipation vs. Ambient Temperature

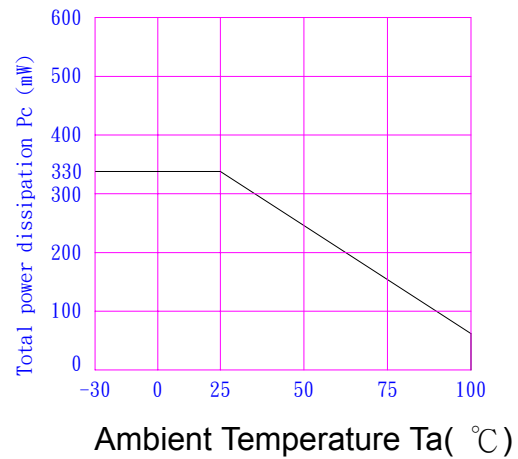


Fig.5 Peak Forward Current vs. Duty Ratio

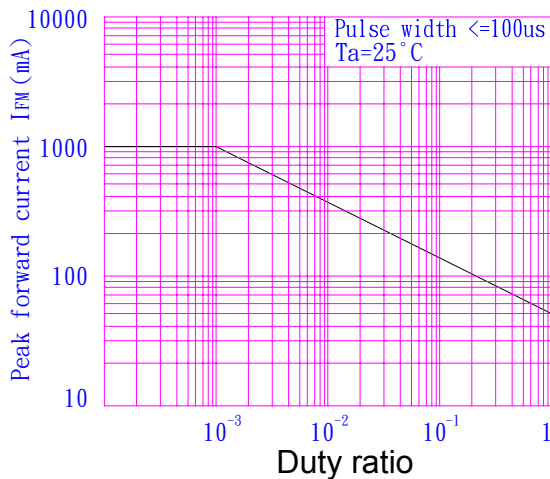
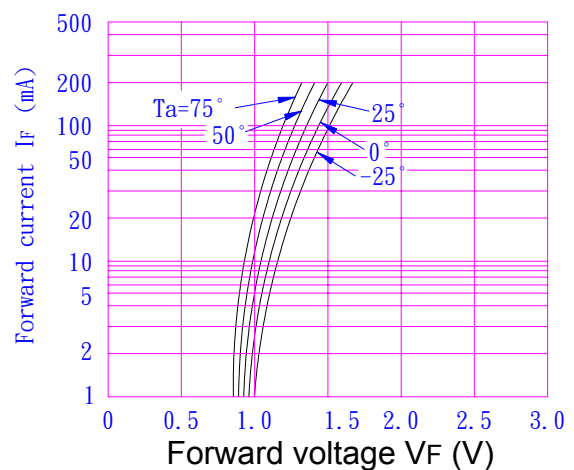


Fig.6 Forward Current vs. Forward Voltage



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Fig.7 On-State Characteristics

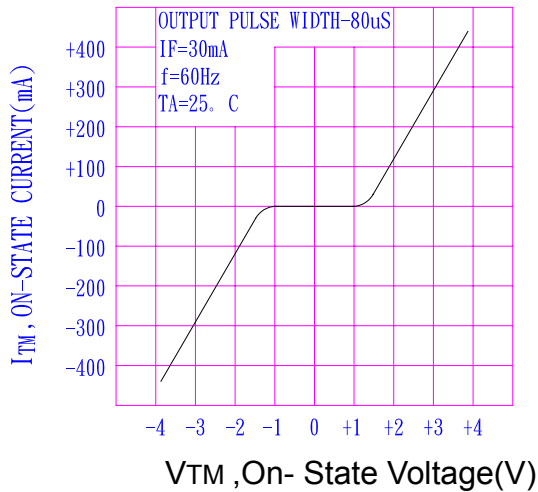


Fig.8 Inhibit Voltage vs. Temperature

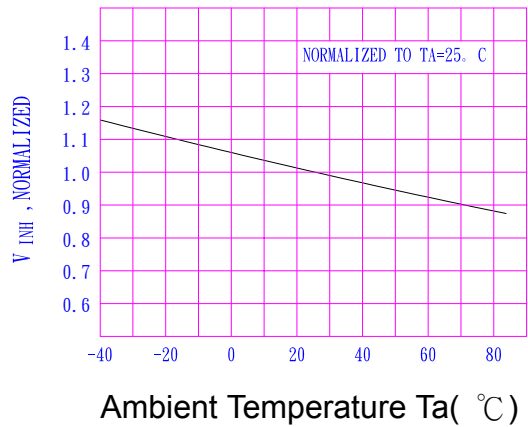


Fig.9 Leakage with LED Off vs. Temperature

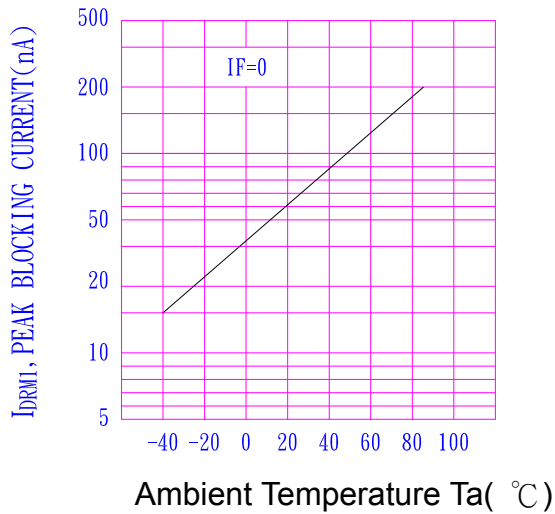


Fig.10 I\_DRM2, Leakage in Inhibit State vs. Temperature

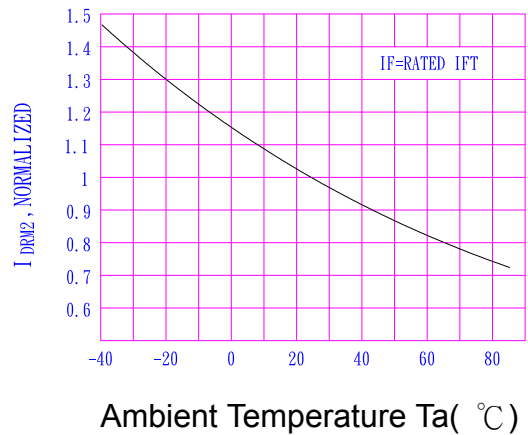
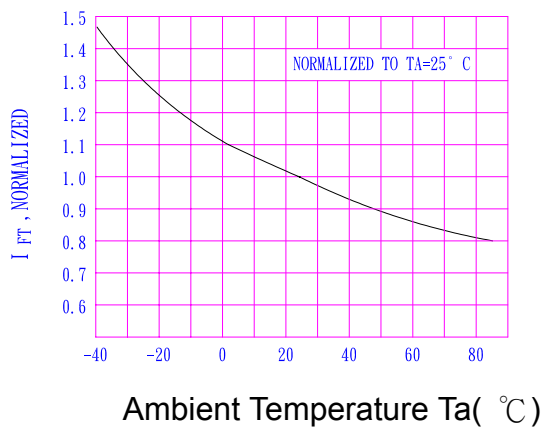


Fig.11 Trigger Current vs. Temperature



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