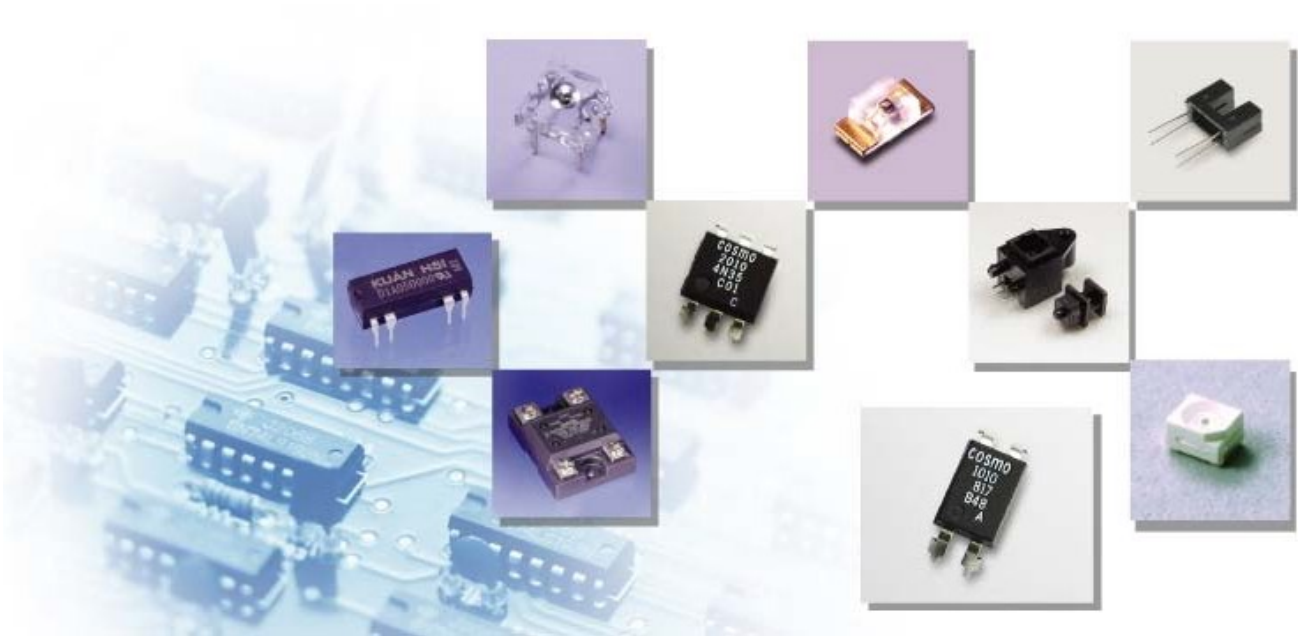


# ***Product Information***



## ***COSMO Optical Product Information***

### ***KMOC308X, Photo Triac series 800V***

冠西電子企業股份有限公司

*COSMO Electronics Corporation.*

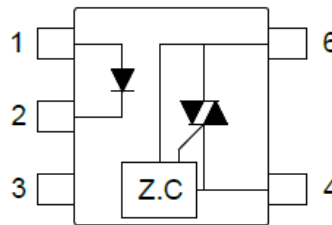
[WWW.COSMO-IC.COM](http://WWW.COSMO-IC.COM)

DOC NO.: MK0607171.1

## Photo Triac KMOC308X Series 800V



*KMOC308X Series is COSMO design photo triac with the function of 800V VDRM & Zero Crossing after 400V 600V series products which is very suitable for applying in SSR, SPS...etc.*

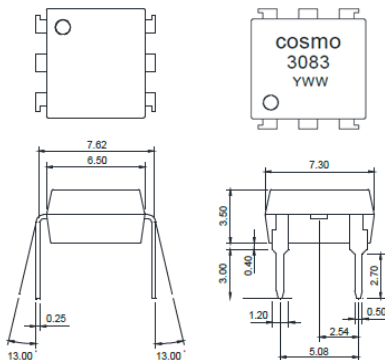


### Pin assignment

1. Anode
2. Cathode
3. NC
4. Main terminal
6. Main terminal

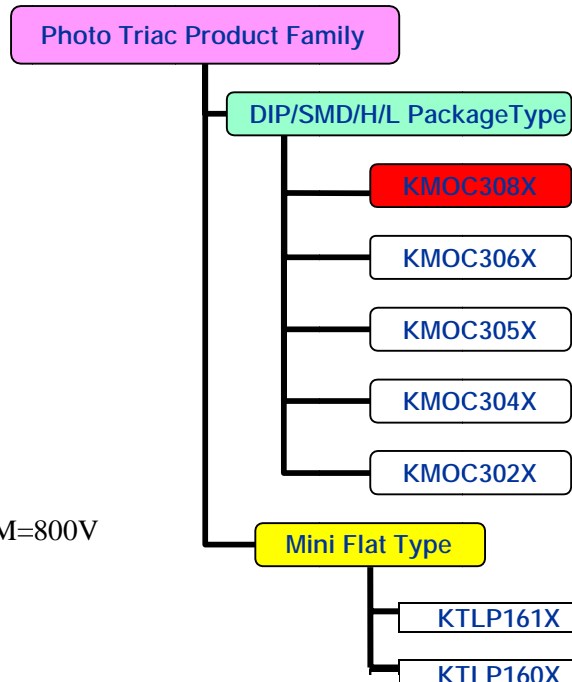
- ❖ *Improve off-state output terminal voltage  $V_{DRM}$*
- ❖ *Variety selections of trigger current  $I_{FT}$*
- ❖  *$dv/dt=1000V/us$  custom-made*
- ❖ *Acquired safety approval: UL, c-UL, VDE, FIMKO, SEMKO, COC*
- ❖ *Lead free production*

### Package dimensions



## Product Features

- High isolation voltage 5300Vrms
- High Off-state Output Terminal voltage  $V_{DRM}=800V$
- Available package : DIP/SMD/H/L Type.
- Trigger current  $I_{FT}=5mA$  ( 3083 ) ,  
10mA ( 3082 ) , 15mA ( 3081 )
- On-state current  $I_{TM}=100mA$



## Photo Triac KMOC308X Series 800V

### Application

- Solenoid/valve Controls
- Static Power Switches
- AC Motor Drives
- Temperature Controls
- AC Motor Starters
- E.M. Contactors
- Solid State Relay

### Minimum trigger current ( $I_{FT}$ )

Item	Max.	Unit
KMOC3081	15	mA
KMOC3082	10	
KMOC3083	5	

### Electrical characteristics ( $T_a=25^\circ\text{C}$ )

Parameter		Symbol	Rating	Unit
Input	Forward current	$I_F$	50	mA
	Peak forward current	$I_{FM}$	1	A
	Reverse voltage	$V_R$	6	V
	Power dissipation	$P_D$	70	mW
Output	Off-state output terminal voltage	$V_{DRM}$	800	$V_{PEAK}$
	On-state R.M.S. current	$I_{T(RMS)}$	100	mA
	Peak repetitive surge current (PW=10ms.DC 10%)	$I_{TSM}$	1	A
	Power dissipation	$P_D$	300	mW
Total power dissipation		$P_{tot}$	330	mW
Isolation voltage 1 minute		$V_{iso}$	5300	Vrms
Operating temperature		$T_{opr}$	-40 to +115	$^\circ\text{C}$
Storage temperature		$T_{stg}$	-50 to +125	$^\circ\text{C}$
Soldering temperature 10 seconds		$T_{sol}$	260	$^\circ\text{C}$

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	$V_F$	$I_F=10\text{mA}$	-	1.2	1.4	V
	Reverse current	$I_R$	$V_R=4\text{V}$	-	-	10	$\mu\text{A}$
Output	Peak blocking current	$I_{DRM}$	$V_{DRM}$ Rated	-	-	500	nA
	On-state voltage	$V_{TM}$	$I_{TM}=100\text{mA}$	-	1.8	3	V
Transfer characteristics	Holding current	$I_H$		-	0.1	-	mA
	Critical rate of rise of off-state voltage	dv/dt	$V_{DRM}=(1/\sqrt{2})\text{*Rated}$	1000	-	-	V/ $\mu\text{s}$
	Inhibit voltage (MT1-MT2 voltage above which device will not trigger)	$V_{INH}$	$I_F=\text{Rated } I_{FT}$	-	10	20	V
	Leakage in inhibited state	$I_{DRM2}$	$I_F=\text{Rated } I_{FT}, \text{ Rated } V_{DRM}, \text{ Off State}$	-	-	500	$\mu\text{A}$
	Isolation resistance	$R_{iso}$	DC500V	$5 \times 10^{10}$	$10^{11}$	-	$\Omega$
	Minimum trigger current	$I_{FT}$	Main terminal voltage=3V	KMOC3081	-	-	15
			KMOC3082	-	-	10	mA
			KMOC3083	-	-	5	mA



冠西電子企業股份有限公司  
*COSMO Electronics Corporation.*

*www.cosmo-ic.com*

*COSMO Electronics Corp.*

*8F, No.258, Lian Cheng Rd., Chung-Ho Dist,  
New Taipei City 235 Taiwan, R.O.C.*

*Tel:886-2-8227-1877 Fax:886-2-8227-1855*

*E-mail:sales@cosmo-ic.com <http://www/cosmo-ic.com>*

The information contained in this document is intent to be a general product description only and is subject to change without notice. Please contact Cosmo in order to obtain the latest device data sheets before using any Cosmo devices. Cosmo does not assume any responsibility for use of any circuitry described; no circuit patent licenses are implied. This publication is the property of Cosmo. No part of this publication may be reproduced or copied in any form or by any means, or transferred to any third party without the prior written consent of Cosmo Electronics Corporation.

Please note: The devices listed in this document are designed for general applications only in electronic equipment. No devices shall be deployed which require higher level of reliability such as medical and other life support equipments; space application ; telecommunication equipment (trunk lines) and nuclear power control equipment unless it received prior written approval from Cosmo. Cosmo takes no responsibility for damages arise from the improper usage of our device. Should you require more information on the above notice, please contact Cosmo.

*DOC NO.: MK0607171.1*