cosmo

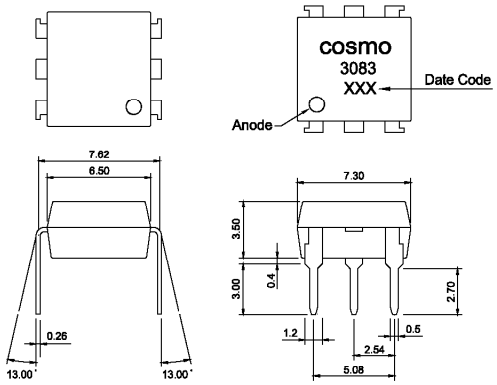
Zero Crossing Optoisolators Triac Driver Output (800V Volts Peak) KMOC3083

UL 1577 (File No.E169586) **VDE** 0884 / 0860 / 0805 (File No.101347)

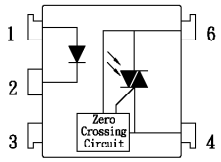
For 115/240 Vac (rms) Application:

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 Starters
8. Solid State Relays
9. Available package : DIP/ SMD/ H.

Outside Dimension : Unit (mm)



Schematic : Top View



1. Anode
2. Cathode
3. NC
4. MAIN TERMINAL
6. MAIN TERMINAL

Absolute Maximum Ratings

(Ta=25°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	Vpeak
	Peak Repetitive Surget Current	I_{TSM}	1	A
	Power dissipation	P_D	300	mW
Total power dissipation		Ptot	330	mW
Isolation voltage 1 minute		Viso	5000	Vrms
Operating temperature		Topr	-40 to +80	°C
Storage temperature		Tstg	-40 to +125	°C
Soldering temperature 10 seconds		Tsol	260	°C

Electro-optical Characteristics

(Ta=25°C)

	Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	I_F =10mA	—	1.2	1.4	V
	Reverse Leakage Current	I_R	V_R =4V	—	—	10	UA
Output	Peak Blocking Current	I_{DRM}	V_{DRM} =Rated	—	60	500	nA
	ON-State Voltage	V_{TM}	I_{TM} =100mA	—	1.8	3	V
	Critical rate of rise of OFF-state voltage	dV/dt	V_{DRM}= (1/ √2) *Rated	600	—	—	V/uS
Transfer characteristics	Holding Current	I_H		—	100	—	uA
	Inhibit Voltage (MT1-MT2 Voltage above which device not trigger.)	V_{INH}	I_F =5mA	—	8	20	V
	Leakage in Inhibited State	I_{DRM2}	I_F =Rated I_{FT}, Rated V_{DRM}, Off State	—	—	500	uA
	Isolation resistance	Riso	DC500V	$5x10^{10}$	10^{11}	—	ohm
	Minimum trigger current	I_{FT}	Main Terminal Voltage=3V	—	—	5	mA

Fig.1 Forward Current vs. Ambient Temperature

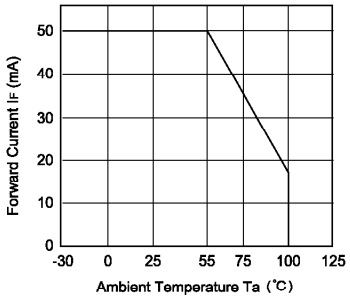


Fig.2 Diode Power Dissipation vs. Ambient Temperature

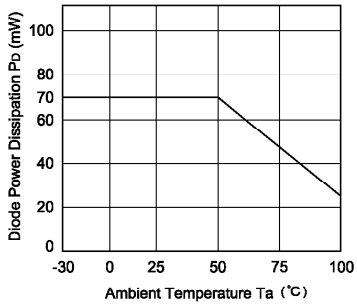


Fig.3 On-State R.M.S. Current vs. Ambient Temperature

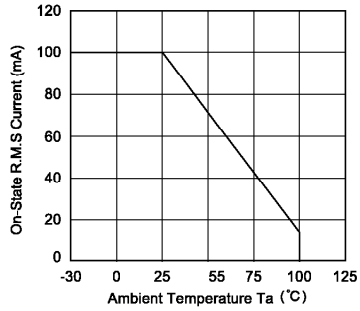


Fig.4 Total Power Dissipation vs. Ambient Temperature

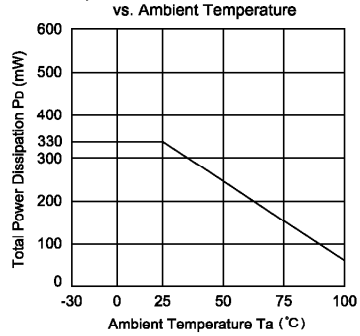


Fig.5 Peak Forward Current vs. Duty Ratio

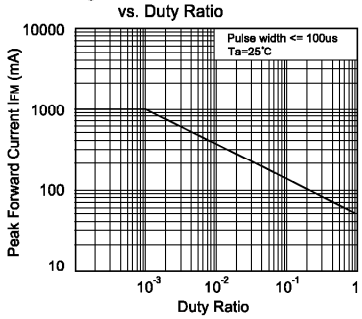


Fig.6 Forward Current vs. Forward Voltage

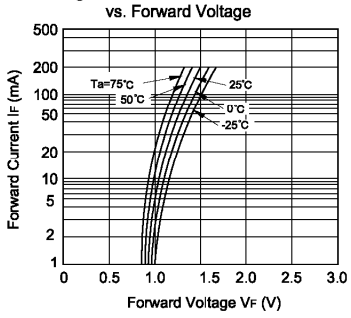


Fig.7 On-State Characteristics

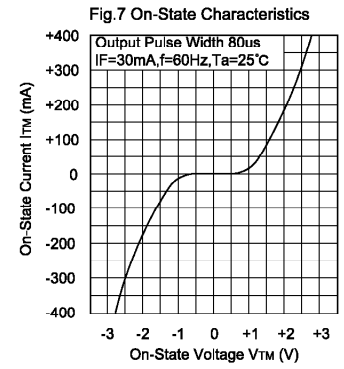


Fig.8 Inhibit Voltage vs. Ambient Temperature

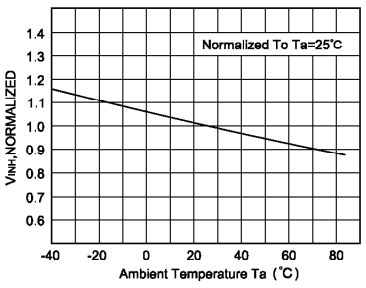


Fig.9 Leakage with LED off vs. Ambient Temperature

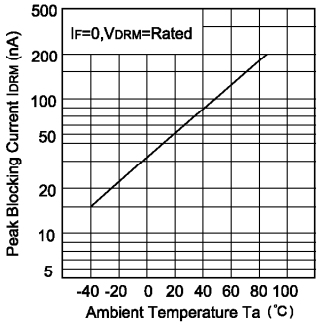


Fig.10 IDRM2,Leakage In Inhibit State vs. Ambient Temperature

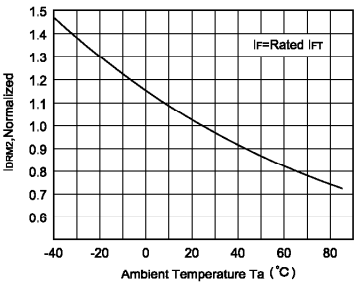


Fig.11 Tigger Current vs. Ambient Temperature