

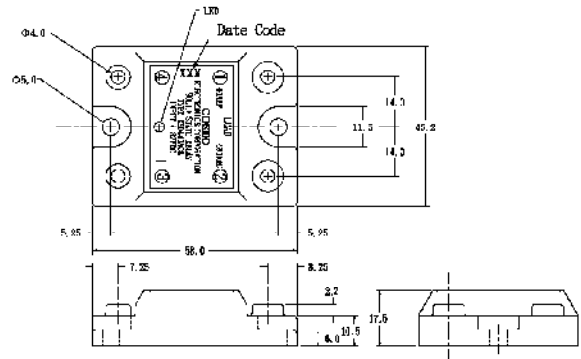
**Features**

1. Molded epoxy body.
2. Zero crossing circuit.
3. High input/output insulation.
4. Small size and light weight.
5. Fast reactive speed.
6. Good heat sinking.
7. Normally open.

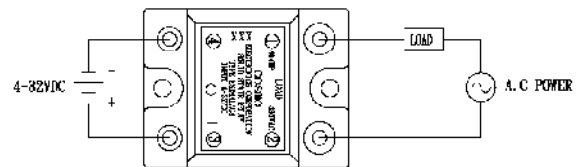
**Applications**

1. Household Appliances.
2. Temperature Control System.
3. Industrial Automatic Control.
4. Lighting System.
5. Office Appliances.
6. Factory Appliances.

**Outside Dimension : Unit (mm)**



**Schematic : Top View**



**Absolute Maximum Ratings**

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Input Signal Voltage	V <sub>in</sub>	4-32	VDC
	Drop-out Voltage	V <sub>do</sub>	1	VDC
Output	RMS on-state current	I <sub>T</sub>	40	Arms
	Peak one cycle surge current (8.3 ms)	I <sub>surge</sub>	400	A
	Repetitive peak-off state Voltage	V <sub>DRM</sub>	800	V
	Operating frequency	f	47-70	Hz
	Critical rate of rise of on-state current	di/dt	50	V/μS
	Load supply voltage	V <sub>out</sub>	480	Vrms AC
Isolation Voltage input to output		V <sub>iso</sub>	4000	Vrms
Operating Temperature		T <sub>opr</sub>	-30-100	°C
Storage Temperature		T <sub>stg</sub>	-30-125	°C

**Electrical Characteristics**

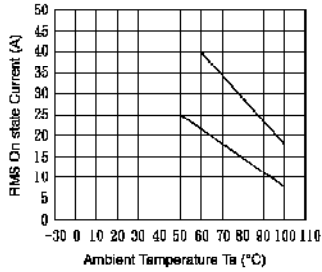
(Ta=25°C)

Parameter		Symbol	Conditions	MIN	TYP	MAX	Unit
Input	Pick-up Voltage	V <sub>pu</sub>	I <sub>T</sub> =1Arms			4	VDC
	Input current	I <sub>in</sub>	V <sub>in</sub> =4-32V	5		12	mA
Output	On-state Voltage	V <sub>r</sub>	I <sub>T</sub> =1Arms			1.5	Vrms
	Operating Current	I <sub>op</sub>	V <sub>out</sub> =480Vrms	50			mArms
	Leakage Current	I <sub>leak</sub>	V <sub>out</sub> =480Vrms			14	mArms
	Critical rate of rise of off-state Voltage	dv/dt	See Note 1	50	200		V/μS
	Zero-cross Voltage				Yes		
	Load Voltage Rating	V <sub>out</sub>	I <sub>T</sub> =50mArms MIN	75		480	VAC
Minimum trigger current		I <sub>FT</sub>	V <sub>DRM</sub> =800V			25	mA
Isolation resistance input to output		R <sub>iso</sub>	DC500V	10 <sup>12</sup>			Ω
Turn-on time		T <sub>on</sub>	60Hz AC			8.3	mS
Turn-off time		T <sub>off</sub>	60Hz AC			8.3	mS
Thermal resistance (between junction and case)		R <sub>th(j-c)</sub>			1.3		°C/W

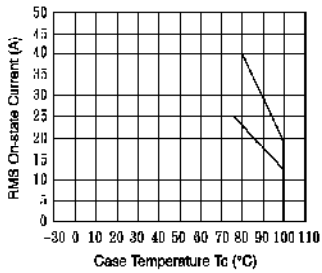
Note1 : Output (dv/dt) protection is provided in all models, and they are designed to switch resistive or inductive loads to 0.2 power factor. The dv/dt rating is based on source impedance of 50 ohms.

## Data Curve

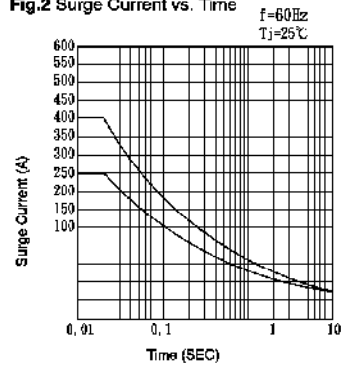
**Fig.1 RMS On-state Current vs. Ambient Temperature**



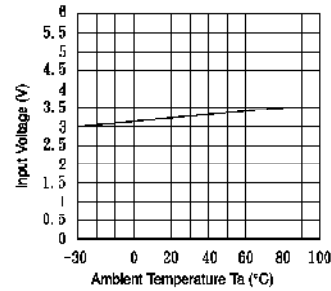
**Fig.4 RMS On-state Current vs. Case Temperature**



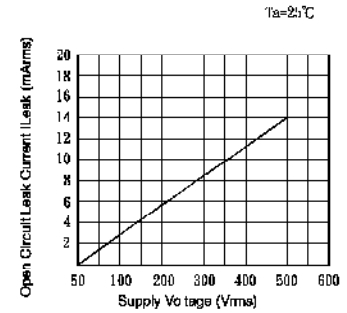
**Fig.2 Surge Current vs. Time**



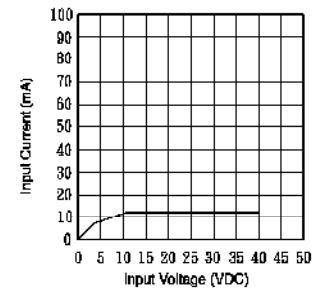
**Fig.5 Input Voltage vs. Ambient Temperature**



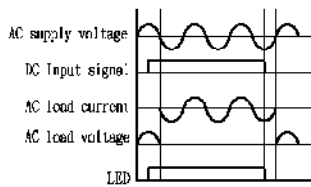
**Fig.3 Open Circuit Leak Current vs. Supply Voltage**



**Fig.6 Input Current vs. Input voltage**



**Fig.7 Action waveform**



**Fig.8 WIRING DIAGRAM**

