

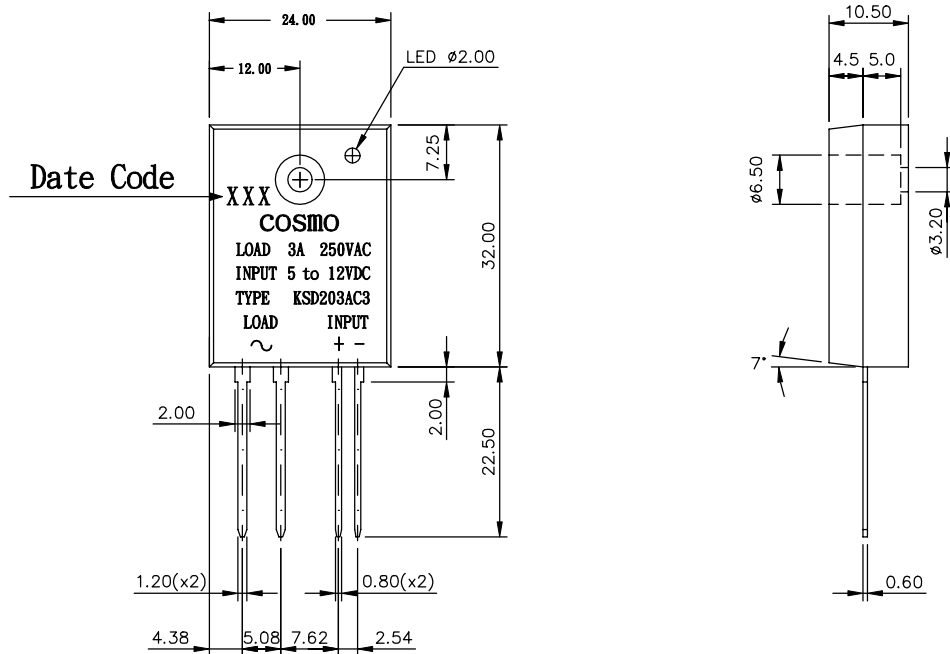
# PRODUCT SPECIFICATION

**COSMO**  
ELECTRONICS CORPORATION

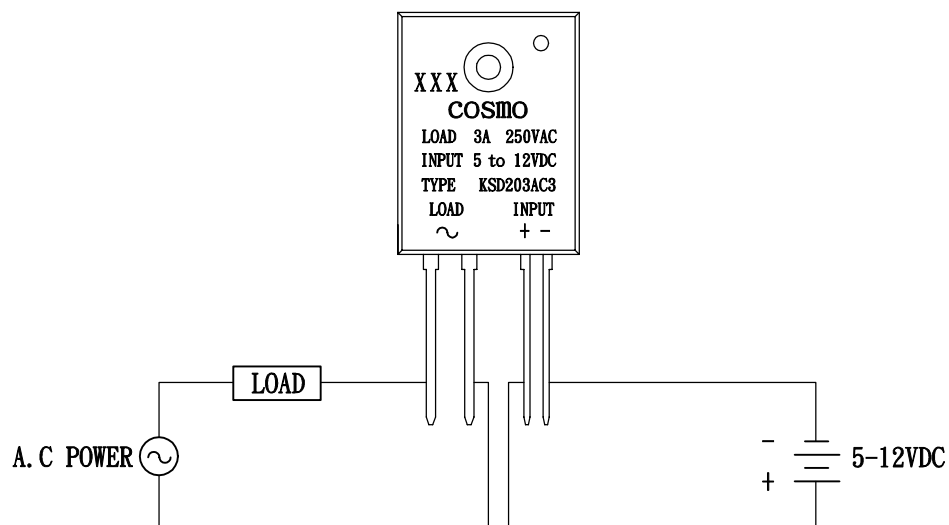
**SOLID STATE RELAY:  
KSD203AC3**

**SHEET 1 OF 2**

## 1. OUTSIDE DIMENSION : UNIT ( mm )



## 2. SCHEMATIC : TOP VIEW



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## 3. Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Input signal voltage	V <sub>IN</sub>	5~12	VDC
	Drop-out voltage	V <sub>do</sub>	1	VDC
Output	RMS on-state current	I <sub>T</sub>	3	Arms
	Peak one cycle surge current	I <sub>surge</sub>	30	A
	Repetitive peak-off state voltage	V <sub>DRM</sub>	600	V
	Operating frequency	f	47~70	Hz
	Critical rate of rise of on-state current	di/dt	50	A/us
	Load supply voltage	V <sub>out</sub>	250	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
Soldering temperature 10sec		T <sub>sol</sub>	260	°C

## 4. 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> =5~12V	5		25	mA
Output	On-state voltage	V <sub>T</sub>	I <sub>T</sub> =1Arms			1.5	Vrms
	Operating current	I <sub>op</sub>	V <sub>out</sub> =240vrms	50			mArms
	Leakage current	I <sub>leak</sub>	V <sub>out</sub> =240vrms			7	mArms
	Critical rate of rise of off-state voltage	dv/dt	See Note 1	50	200		V/us
	Zero-cross voltage	V <sub>ox</sub>	I <sub>in</sub> =7mA	50		35	VAC
	Load Voltage Rating	V <sub>out</sub>	I <sub>T</sub> =50mArms MIN			280	VAC
Minimum trigger current		I <sub>FT</sub>	V <sub>DRM</sub> =600V			10	mA
Isolation resistance input to output		R <sub>iso</sub>	DC500V	10 <sup>10</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</sub> (j-c)1			1.3		°C/W