

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Model number, Output ratings and Efficiency

		Output Current (A)		Efficiency at 100%	
MODEL No.	Output Voltage			Load (	ГурісаI)
	(VDC)	100VAC	230VAC	100VAC	230VAC
KRS25F-03	3.3	6	6	69	69
KRS25F-05	5	5	5	74	74
KRS25F-12	12	2.1	2.1	80	80
KRS25F-15	15	1.7	1.7	80	80
KRS25F-24	24	1.1	1.1	80	80

Input specification

Input rating 100 - 230VAC (85 ~ 264VAC)

50 − 60Hz (47 **~** 63Hz)

3. 3V output : 0.47 - 0.26A typical (at nominal output) Other outputs: 0.55 - 0.3A typical (at nominal output)

In-rush current 17 / 41 A typical (at 100/230VAC input)

Leakage current 0.5 / 0.75mA maximum (at 100/230VAC 63Hz input)

**Output specifications** 

Voltage adjustment range ±10%

Output voltage accuracy ±5%

Input/Output regulation

MODEL No.	Input regulation (mVmax) (85-132/170-264VAC)	Load regulation (mVmax) (0~100% load)	Ripple and Noise (DC - 20MHz) (100% load)		z)	
			100	Vin	230	Vin
			*1	*2	*1	*2
KRS25F-03	16.5	100	200	250	150	150
KRS25F-05	25	100	200	250	150	150
KRS25F-12	60	100	250	250	100	100
KRS25F-15	75	100	350	350	100	100
KRS25F-24	120	100	400	450	100	150

<sup>\*1:</sup>There is a capacitor on the output pin edge

<sup>\*2:</sup>There is no capacitor on the output pin edge.

0. 1	0.1 11-Jun-04 The part highlighted in red change					
REV	DATE	COMMENT			CHK	APP
KAGA COMPONENTS CO., LTD.		DEVISION	Drawn	Checked	Approved	
RAUA COMPONENTS CO., LTD.		Engineering				
Niigata factory		DATE				
	Nilgata lactory		14-May-04	komachi	koike	sugimoto

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Tempertaure coeffecient 0.02%/°C maximum

Drift (0.5% + 15mV)maximum / 8H(after 1H warm-up)

Rise-up Time 300 mS maximum (at 100/230VAC input)

Hold-up Time 9 / 90 mS typical (at 100/230VAC input with nomial output)

Protection specifications

Over Voltage Protection N/A

Over Current Protection over 105%, Automatic recovery

Avoid sustained operation in over load condition.

Thermal Shutdown Power supply, and recycle on.

The power supply will resume normal operation.

Isolation specifications

Isolation Resistance Pri.-Sec  $100M\Omega$  MIN. (500VDC)

Isolation Voltage Pri.-Sec 3000VAC / 1min (10mA)

 $\begin{array}{lll} \text{Pri.-Fg} & 2000 \text{VAC} \ / \ 1 \text{min} & (10 \text{mA}) \\ \text{Sec-Fg} & 500 \text{VAC} \ / \ 1 \text{min} & (10 \text{mA}) \end{array}$ 

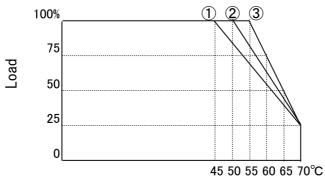
**Environmental specifications** 

Operating Temp.  $0 \sim +70 \,^{\circ}\text{C}$  (see derating curve Fig. 1)

Storage Temp.  $-20 \sim +85^{\circ}C$ 

Humidity 20 ~ 85%RH (No condensing)

Fig. 1 Derating curve (Load vs Ambient Temp.)



- 1:3.3V output only (load reduction rate 3%/°C)
- 2:5V output only

(load reduction rate 3.75%/°C)

3:12V,15V and 24V output (load reduction rate 5%/°C)

Ambient Temprature

Note) 3. 3V and 5V outputs are the input voltages of 100V or less and output current Dirating of 1%/V is necessary.

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## Application standard

Safety: UL60950

CSA C22.2 No.60950 (cUL) CE (EN60950 A3 LVD)

CB (IEC60950:1999,US/6301/UL)

EMI: FCC Part 15 Class B meet

EN55022 Class B meet

VCCI(II) meet

## Shock & Vibration

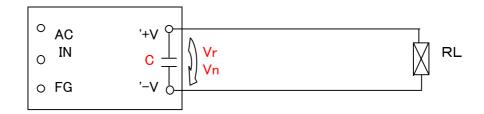
Vibration:  $10 \sim 55$ Hz 0.5mm width/1minute cycle

3 directions each 30 minutes

Shock: 20G ( 3 directions each 3 times)

CONDITION

(Single)



Vr : Measure point of line/load regulation and output voltage.

Vn : Measure point of ripple and noise. (Bayonet tip probe used)

C:  $0.1 \mu F$  film capacitor and  $47 \mu F$  electrolytic capacitor.

Externals size 41 \* 85 \* 27. 4mm

Weight 100g (typ)

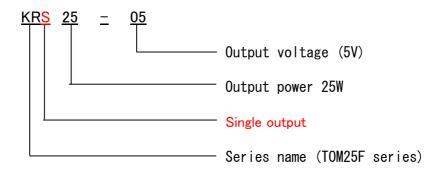
Switching Frequency 100KHz(typ)

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## Explanation of model name



#### **Amends**

After it delivers it, I will repair three years free of charge for an emergency breakdown. However, because handling is careless, it becomes for a fee.

## Soldering condition

Dip: 240°C-255°C (within five seconds)

Hand solder:  $350^{\circ}C \pm 10^{\circ}C$  (within three seconds)

## **Others**

This series is designed in our standard power supply for the general electronic equipment building in. Please do not use it for the equipment (medical equipment, aircraft, and nuclear power control system, etc.) by which the malfunction and the breakdown of the power supply threaten the human body and the life directly.

## **Directions**

- ★ The short-circuit leaving for a long time doesn't cause the breakdown and do not do, please.
- $\Rightarrow$  Please note that there is a case to cause a defective start when a mass capacitor (about 10,000  $\mu$ F) is connected with the load edge.
- ☆ The input fuse prevents secondary destruction due to the breakdown of the power supply, and it doesn't operate normally in the exchange only of the fuse.
  Please request the repair to the agency or our company when the input fuse fuses.

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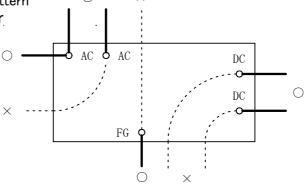


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Application standard	PRELIMINARY	0. 1	5/5

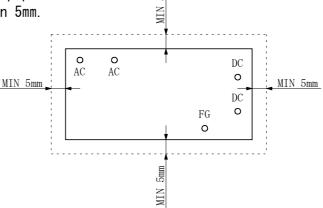
#### Directions

☆ Please arrange it to separate the pattern from this power supply so that the voltage of the noise terminal might become large if it arranges it so that the pattern of the AC input line may pass under this power-supply unit.
Moreover, please arrange it to separate the pattern from this power supply so

that the output noise might become large if it arranges it so that the pattern of the DC output may pass under this power-supply unit.



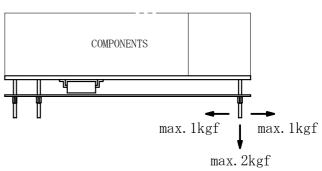
Please insert the insulating paper between those when becoming less than 5mm.



★ It is likely to make an internal connection disconnected when the stress more
than the necessity is added to the I/O pin of the power supply.

Please adjust the stress to 2kgf or
less by horizontal direction by 1kgf

or lessin the vertical direction as shown in the figure below.



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