V-INFINITY
a division of CUI INC

date 04/2010

SERIES: FSK-S5

DESCRIPTION: AC-DC converter

features

- approved to UL60950, CSA C22.2 NO.60950, CB(IEC 60950), CE(EN60950)
- universal input 85~264 Vac/ 110~340 VDC
- encapsulated, compact case
- high efficiency
- surface mounting technology
- 100kHz fixed frequency
- fixed output voltage
- thermal shutdown
- output short circuit protection
- low output ripple and noise
- isolated output
- 2 year warranty

RoHS

model number	input voltage	output voltage	power max.	ripple & noise max.	efficiency (%)
FSK-S5-3R3U	AC 85-264V / DC 110-340V	3.3V @ 1.25A	4.125 W	80 mVp-p	71
FSK-S5-5U	AC 85-264V / DC 110-340V	5V @ 1.0A	5.0 W	80 mVp-p	75
FSK-S5-12U	AC 85-264V / DC 110-340V	12V @ 0.42A	5.0 W	120 mVp-p	77
FSK-S5-15U	AC 85-264V / DC 110-340V	15V @ 0.33A	5.0 W	150 mVp-p	77
FSK-S5-24U	AC 85-264V / DC 110-340V	24V @ 0.21A	5.0 W	200 mVp-p	77

INPUT

parameter	conditions/description	min	nom	max	units
input frequency		47	(50~60)	440	Hz
input voltage	output power derated from 85-90 VAC	85		264	VAC
		110		340	VDC
input current	AC input of 110 VAC			150	mA
	AC input of 220 VAC			80	mA
inrush current	measured at 110 VAC at full load, cold start			20	A
	measured at 220 VAC at full load, cold start			40	A
leakage current	measured at 110 VAC			0.5	mA
	measured at 220 VAC			0.75	mA

OUTPUT

parameter	conditions/description	min	nom	max	units
voltage tolerance		-2%		+2%	
ripple and noise		-1%		+1%	
line regulation		-1%		+1%	
load regulation		-1%		+1%	
dynamic load regulation		-3%		+3%	
temperature drift		-1%		+1%	
rise time				100	mS
hold-up time		10			mS

Discontinued

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PROTECTION CIRCUIT

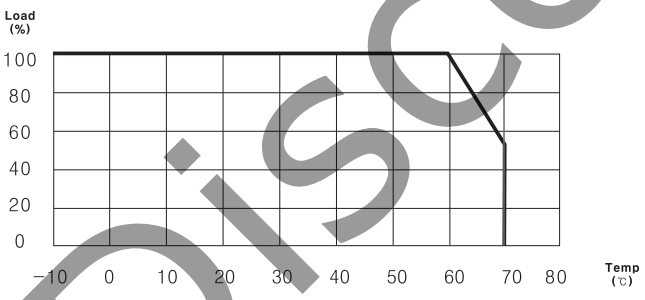
parameter	conditions/description
output over current	works at over 105% of the rating and recovers automatically.
over temperature	150 ºC
over voltage	clamp, 130~150%

GENERAL

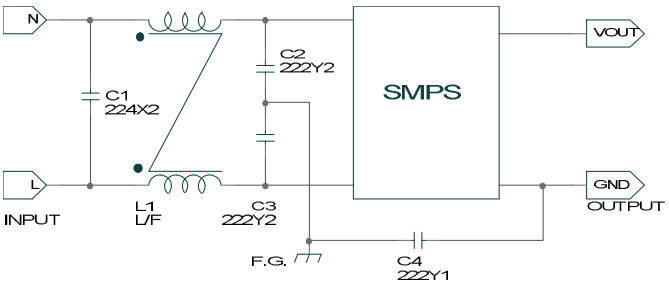
parameter	conditions/description	min	nom	max	units
operating temp.		-20		70	ºC
storage temp.		-40		80	ºC
operating humid.	non-condensing	20%		90%	RH
storage humid.	non-condensing	20%		90%	RH
isolation voltage (HI-POT)	applied for 1 minute, 10mA primary to secondary, 500 Vdc @ 100 MΩ	3000			VAC
vibration	at 10G 3 minute period	10		55	Hz
impact	50G for 11mS, once on each X, Y, Z axis				
MTBF	4.5 x 10^5				hours
RoHS	yes				
safety	approved to UL60950-1(E222889), CSA C22.2 NO.60950, CB(IEC 60950-1), CE(EN60950)				
EMC[1]	5W, 10W single output: approved; EN61204-3 class B, EN 6100-3-3 (through TUV)				
warranty	standard warranty length			2	years

note: 1. to meet the standard of EN61204-3 class B, use the external noise filter between L and N

DERATING CURVE



EXTERNAL EMI FILTER



Components

L1 = 10~30mH Common Mode Line Filter

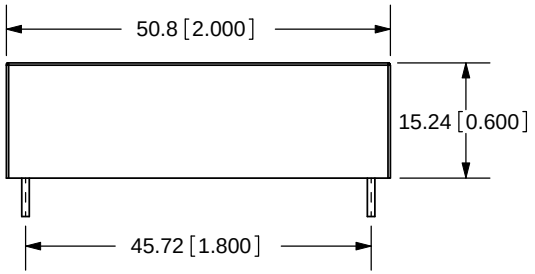
C1 = 220nF X2 Capacitor

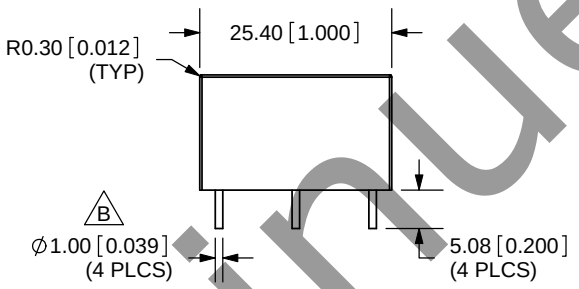
C2,C3 = 2200pF Y2 Capacitor

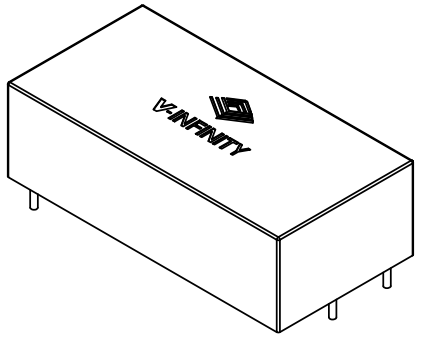
C4 = 2200pF Y1 Capacitor

Discontinued

REV.	DESCRIPTION	DATE
A	NEW DRAWING	9/13/2007
B	added pin diameter dimension	6/27/2008







Discontinued

TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

PIN ASSIGNMENTS

Pin Number	Single Output
1	AC (N)
2	AC (L)
3	NO pin
4	-V out
5	+V out

Notes:
1. All dimensions are in mm [inches]
2. Weight: 40g or less
3. Case material : PBT, UL94V-0
4. Construction: Encapsulated soft pot

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TITLE: AC-DC Converter		REV: B
PART NO. FSK-S5	UNITS: MM [INCHES]	
DRAWN BY: JMS	APPROVED BY:	SCALE: 1:1

PC FILE NAME: FSK-S5

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