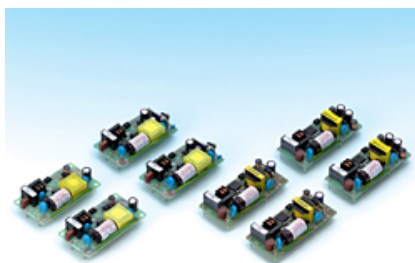




ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

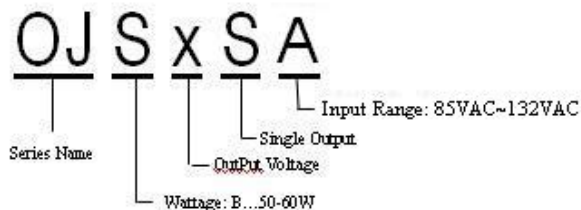
AC/DC SWITCHING POWER SUPPLY
AC INPUT 85~132
SINGLE CHANNEL OUTPUT
10 WATTS



Dimension: W36×L78×H22mm

OJS-SA SERIES

General Description



Input

Input Voltage:	AC100~115V (DC130)
Input Range:	AC85~132V (DC110~175V)
Input Current:	0.3
Frequency:	50/60Hz
Input Frequency Range:	47~440Hz
Phase:	Single
Inrush Current: *1	20A (typical) at AC100V
Leakage Current:	55uA at 25C, 50Hz, AC100V input measured by Yokogawa #3226 1KOhm/0.1uF

Output Characteristic		Models				
	Unit	OJS3.3SA	OJS05SA	OJS12SA	OJS15SA	OJS24SA
Output Voltage	Vdc	3.3	5	12	15	24
Output Current	A	2	2	0.9	0.7	0.45
Voltage Tolerance	Vmax	±0.066	±0.1	±0.24	±0.3	±0.48
Ripple & Noise(max)*3	mVpp	100	150	220	250	340
Rise up time	mS	200mS(maximum) at 25C and rated input/output				
Hold up time	mS	20mS(typical) at 25C				
Regulation						
a. Static Line Regulation	mV	26	40	96	120	192
b. Static Load Regulation	mV	30	45	108	135	216
c. Temperature Coefficient *4	°C	0.03%/C (maximum)				
e. Drift(maximum) *5	mV	32	40	75	90	135
f. Dynamic Load Regulation (typ.) *6	mV	±150	±150	±360	±450	±720
g. Recovery Time	mS	20mS(typical)				

Efficiency *2	%	71	77	80	81	80
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*1 cold start

*2 at DC130V input, 25C and rated output

*3 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

*4 at -10 to +71C

*5 only for 7hours from 1hour after switch-on at 25°C and rated input/output

*6 when output current changed rapidly between 25% and 75% of rated current at rated input

*7 only for a limited time of over current



ETA USA

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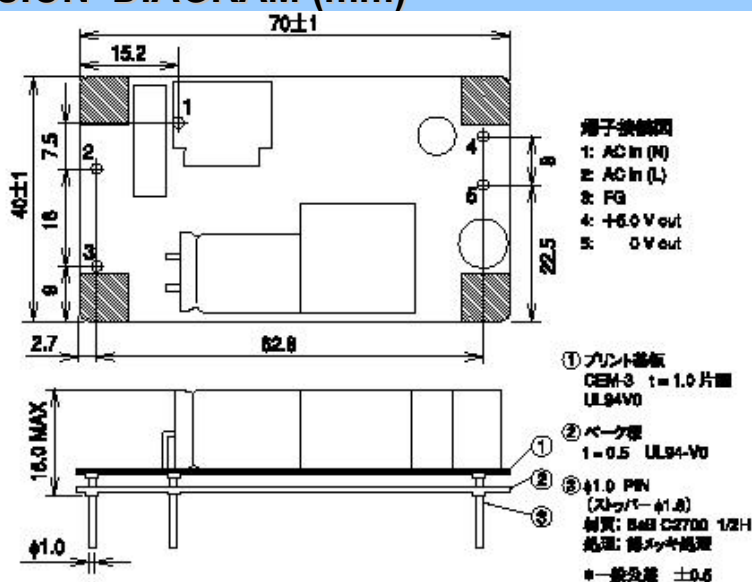


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HIGH QUALITY SWITCHING POWER SUPPLIES

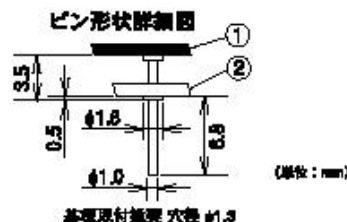
Environmental Specification	
Operating Temperature	-10 to 50°C at full load
Operating Humidity	20-90%/RH (non-condensing)
Storage Temperature	-20 to +85°C
Withstanding Voltage	Primary-Secondary AC1,500V for 1minute at 10mA Primary-Frame Ground AC1,500V for 1minute at 10mA Secondary-Frame Ground AC500V for 1minute at 10mA
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ (minimum) by DC500V insulation tester
Vibration	5-10Hz:10mm double amplitude, 10-55Hz:19.6m/s ² , 20minutes' period for 60minutes each along X,Y,Z axes (non-operating)
Shock	294m/s ²
Cooling	Convection
Environmental Agencies	
Line Conducted Noise	Built to meet FCC Part15-B Class B Built to meet VCCI ClassB
	UL: UL60950, C-UL: CSA C22.2 No.60950,
MTBF [H]	1200000
Frequency[kHz] (Typ.)	90-600kHz at load 0 to 100% and input voltage AC85 to AC132V 110kHz at rated input/output conditions (130kHz for OJS3.3SA-U)
Function/Protection	
Over current Protection *7	Foldback/Current Limiting with automatic recovery
Over voltage Protection	Zener diode clamping
Remote Sense	not available
Trimming of output voltage	not available
Mechanical	
Dimension [mm]	Dimension: W36×L78×H22mm
Weight [g] (typical)	open board type:30g

DIMENSION DIAGRAM (mm)



基板実装時の注意事項

- (1) 4ヶ所の銅線部の下は部品・パターン実装不可事項です。
(給電部より約5mm以内)
- (2) 基板表面に部品に接点が触れる場合は、基板表面から1.5mm以上の距離を確保して下さい。
- (3) 基板表面側にチップ部品が搭載されています。基板への反り、よれ等の変形を加えると信頼性が低下します。
機械的圧力等を見逃さずご注意ください。



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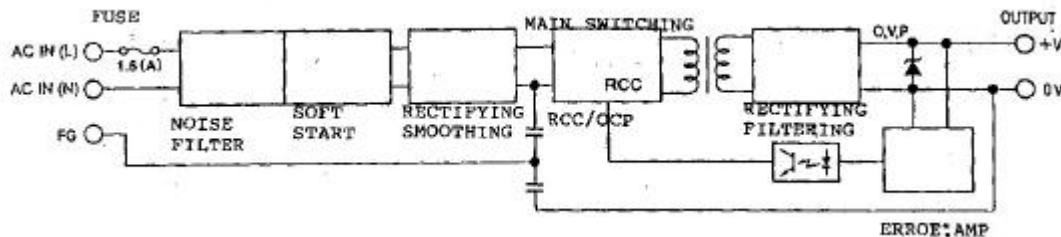
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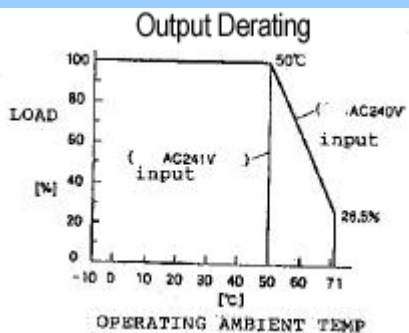
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HIGH QUALITY SWITCHING POWER SUPPLIES

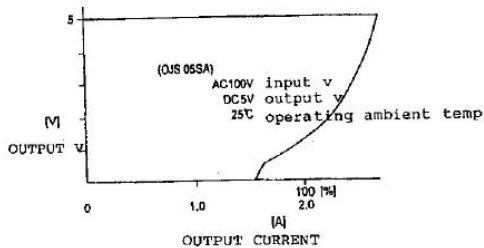
BLOCK DIAGRAM



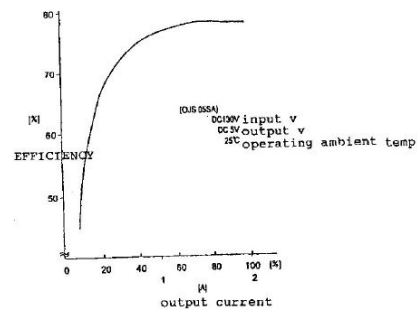
DERATING CURVE



OCP CURVE



EFFICIENCY CURVE



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