

MITSUBISHI HYBRID IC M57116L-01

POWER SUPPLY FOR MACHINERY

DESCRIPTION

M57116L-01 is a hybrid IC for insulated DC-DC converter with built in transformers.

An input of DC 400-800V produces DC15V/0.25A +5V/0.5A -15V/0.05A output. Electrical isolation between primary and secondary sides is 2500Vrms.

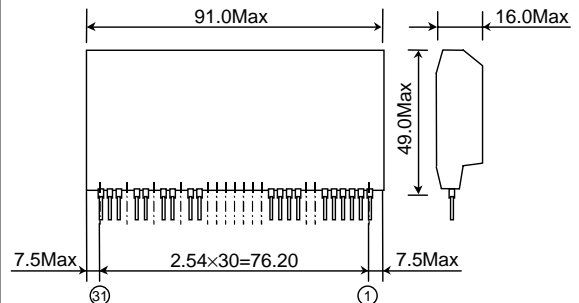
This hybrid IC is suitable for FA equipment.

FEATURES

- Input voltage DC400 ~ 800V
- Output specification 15V/0.25A -15V/0.05A
5V/0.5A
- Built in over current protection
- Electrical isolation between primary and secondary sides
..... 2500Vrms for 1 min.

OUTLINE DRAWING

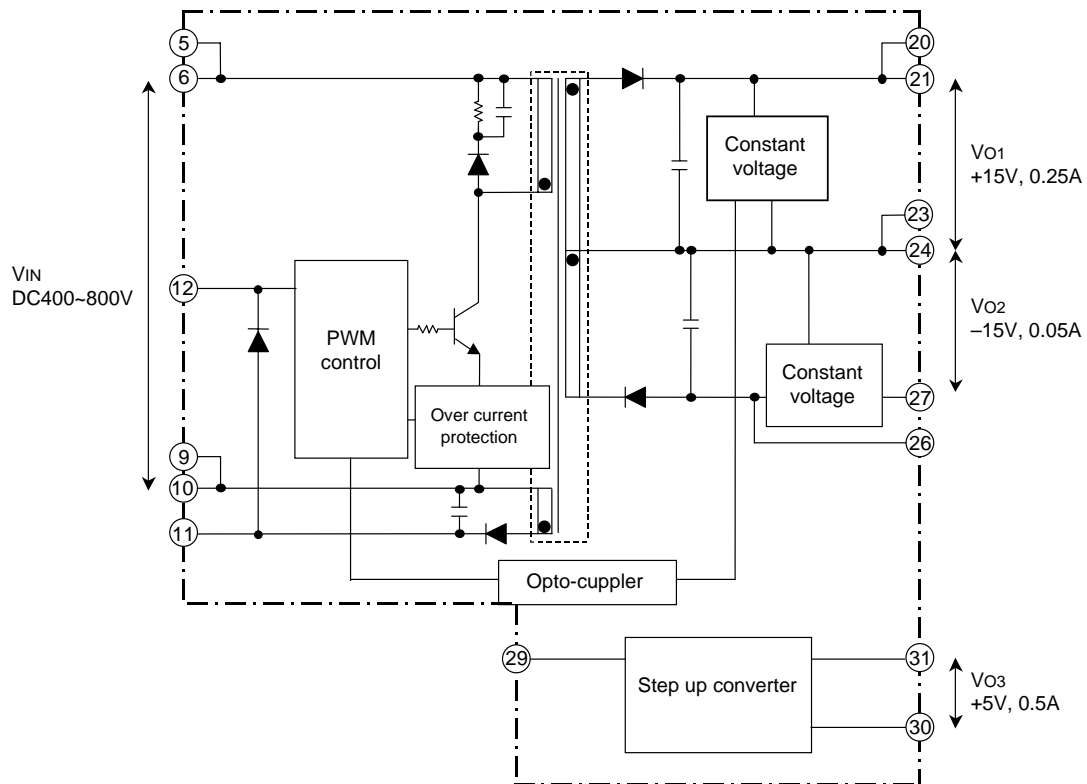
Dimensions: mm



APPLICATIONS

- Power supply for IGBT driver circuits.
- On board power supply for FA equipment.
- Power supply for electronic devices.

BLOCK DIAGRAM



M57116L-01

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RATING (Unless otherwise noted, Ta = 25°C)

Symbol	Parameter	Conditions	Rations	Units
V _{IN}	Input voltage	Between ⑤⑥-⑨⑩pin	800	V
I _{O1}	Load current	Between ⑳㉑㉓㉔pin	250	mA
I _{O2}		Between ㉓㉔㉗pin	50	
I _{O3}		Between ㉓①㉓pin	500	
P _o	Output power	—	7.0	W
T _{opr}	Operating temperature	No condensation allowable	-10 ~ +50 *1	°C
T _{stg}	Storage temperature	No condensation allowable	-20 ~ +85	°C
V _{iso}	Electrical isolation between primary and secondary sides	AC voltage, 60Hz, 1 min.	2500	V _{rms}

ELECTRICAL CHARACTERISTICS (Unless otherwise noted, V_{IN} = 600V, Ta = 25°C)

Symbol	Parameter	Test conditions	Limits			Units	
			Min	Typ	Max		
V _{IN}	Input voltage	Recommended range	400	600	800	V	
V _{O1}	Output voltage	At the maximum rated load	⑳㉑ - ㉓㉔	14.25	15.0	15.75	V
V _{O2}			㉓㉔ - ㉗	-15.75	-15.0	-14.25	
V _{O3}			③① - ③③	4.75	5.0	5.25	
Reg-I	Input regulation	V _{IN} = 400 ~ 800V	⑳㉑ - ㉓㉔	-	-	60	mV
			㉓㉔ - ㉗	-	-	300	
			③① - ③③	-	-	20	
Reg-L	Load regulation	I _{o1} = 100 ~ 250mA :	⑳㉑ - ㉓㉔	-	-	120	mV
		I _{o2} = 10 ~ 50mA :	㉓㉔ - ㉗	-	-	150	
		I _{o3} = 100 ~ 500mA :	③① - ③③	-	-	40	
η	Efficiency	At the maximum rated load	-	65	-	%	

CONNECTION FIGURE

