

Power Hybrid ICs for Switching Regulators

NICHICON's total engineering technology of thick film and assembling has successfully achieved in development of power hybrid ICs, which have a few watt power loss level. Hereunder are shown for standard switching regulators of DC-DC down converter type.
(Samples for the items listed below are not always available on stock, please contact our sales office for details together with your specific requirements.)

SRP Series

This compact module, packed in an aluminum die-casting case and sealed tightly with resin, is assembled with miniature thick film Hybrid IC and other components like electrolytic capacitors, choke coils and etc.

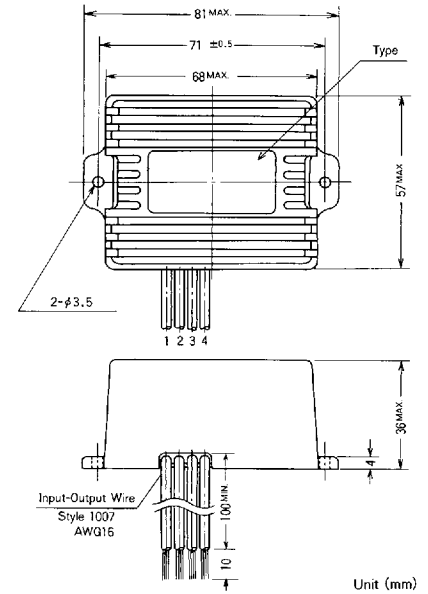
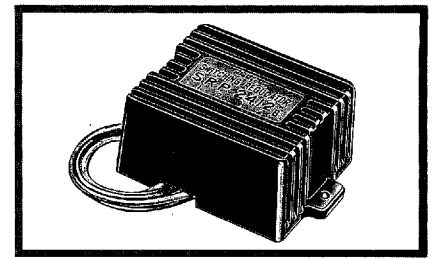
This is ideally suited for control circuits of switching regulators in battery apparatus, automobile appliances, and navigation devices, as it has vibration and salt resistance property.

Electrical characteristics

Ta : +25°C

Type	SRP2405	SRP2409	SRP2412	SRP2412B	SRP2415
Code	ZHSP2405	ZHSP2409	ZHSP2412	ZHSP2412B	ZHSP2415
Input voltage (V)	19.2~31.2(24Typ.)				
Output current (A)	0.25~2.0 (3A for intermittent use)				
Oscillation frequency (kHz)	50				
Output voltage (V)	5	9	12	13.8	15
Regulation to line (mV)	30	100	150	150	180
Regulation to load (mV)	20	30	30	30	40
Output ripple (mVp-p)	50	60	60	60	80
Limited output current(A)	3.6	3.6	3.6	3.6	3.6
Efficiency (%)	70	75	81	83	84

Dimensions



SRC Series

This compact module consists of thick film Hybrid IC and power electric parts mounted on an aluminum base, and has less heat resistance so as to be suitable for control circuits of switching regulators.

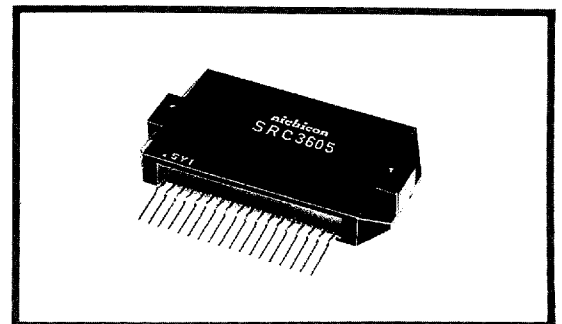
This is ideal for on-board power supplies of control panels and various kind of power supplies.

Composite Power Supply (1 output)

Ta : +25°C

Type	SRC3605	SRC3609	SRC3612	SRC3612B	SRC3615
Code	ZHSC3605	ZHSC3609	ZHSC3612	ZHSC3612B	ZHSC3615
Input voltage (V)	50Max(36Typ.)				
Output current (A)	3.0Max.				
Oscillation frequency (kHz)	50				
Output voltage (V)	5	9	12	13.8	15
Regulation to line (mV)	100	200	250	300	300
Regulation to load (mV)	30	30	30	40	40
Output ripple (mVp-p)	20	30	40	50	50
Limited output current (A)	3.6	3.6	3.5	3.6	3.6
Efficiency (%)	65	75	80	82	83

SRC3605, 3609, 3612, 3612B, 3615



Composite Power Supply (2 outputs)

Ta : +25°C

Type	SRC 0110 (Code ZHSC0110)	
Item	Output 1	Output 2
Input voltage (V)	50Max.(35Typ.)	
Output voltage (V)	5.0±0.1	24.0±0.3
Output current AV (A)	3	3
Output current PK (A)	3.6	6
Regulation to line (mV)	150Max.	300Max
Regulation to load (mV)	180Max.	250Max
Oscillation frequency (kHz)	35Typ.	
Efficiency (%)	80Typ.	

Dimensions

