

F_S-1W/2W Series**1W/2W, Fixed Input, Isolated&Unregulated Single Output DC-DC Converter****Characteristics:**

- Environment-friendly Design, RoHs Compliance
- CE Certificate
- Industrial Products. Temperature Range: -40~+85°C
- Rated Power: 1W, 2W
- Fixed Input: 5V, 12V, 24V
- Unregulated Output: 3.3V, 5V, 9V, 12V, 24V
- Isolated Voltage: $\geq 3000\text{VDC}$ or 5200VDC
- High Stability&Performance, MTBF ≥ 1 million Hours
- International Standard Pins, SIP/DIP Package

Product List

Input Range(V)	Nominal Output Voltage/Current		Efficiency (%) (Typ.)	Ripple&Noise (mVp-p)	Part Number
	Output Voltage (V)	Output Current (mA) (Max.)			
5	3.3	303	70	75	F0503S-1W
	5	200	72	75	F0505S-1W
	9	111	73	75	F0509S-1W
	12	83	76	85	F0512S-1W
	15	66	76	85	F0515S-1W
	24	41	80	100	F0524S-1W
12	5	200	73	75	F1205S-1W
	9	111	73	75	F1209S-1W
	12	83	76	85	F1212S-1W
	15	66	76	85	F1215S-1W
	24	41	80	100	F1224S-1W
24	5	200	74	75	F2405S-1W
	9	111	75	75	F2409S-1W
	12	83	77	85	F2412S-1W
	15	66	78	85	F2415S-1W
	24	41	81	100	F2424S-1W
5	3.3	400	70	75	F0503S-2W
	5	400	75	75	F0505S-2W
	9	222	78	75	F0509S-2W
	12	181	78	85	F0512S-2W
	15	133	81	85	F0515S-2W
	24	83	82	100	F0524S-2W
12	5	400	76	75	F1205S-2W
	9	222	79	75	F1209S-2W
	12	181	89	85	F1212S-2W
	15	133	80	85	F1215S-2W
	24	83	81	100	F1224S-2W

24	5	400	77	75	F2405S-2W
	9	222	79	75	F2409S-2W
	12	181	80	85	F2412S-2W
	15	133	82	85	F2415S-2W
	24	83	82	100	F2424S-2W

Note: If Isolated Voltage $\geq 5200\text{VDC}$, the rated power is 1W.

Ripple and Noise (Peak-Peak) Test by Probe and Twisted-pair Cable

Specifications

Note: all specifications measured at $T_a=25^\circ\text{C}$, nominal input voltage and nominal load.

Input

Input Voltage		nominal 5V	4.5-5.5VDC
		nominal 12V	10.8-13.2VDC
		nominal 24V	21.6-26.4VDC
Load Power Consumption			10% rated power(Typ.)

Output

Output Power	operating temperature $< 85^\circ\text{C}$ (No operating without load)	0.1W~1W / 0.2W~2W
Voltage Accuracy		as shown in tolerance envelope graph
Line Voltage Regulation	rated load, input voltage range	1.2%(Typ.)
Load Regulation	nominal input, 10%~100% load	10%(Typ.)

General

Switching Frequency (Typ.)		100KHz
Insulation Resistance	Test at 500VDC	1000M Ω
Insulation Voltage	Input/Output, Tested for 1 minute and 1 mA Max.	3000VDC
Operating Temp.	\leq Rated Load	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temp.	Humidity $\leq 90\%$	$-40^\circ\text{C} \sim +125^\circ\text{C}$
MTBF	$T_a=25^\circ\text{C}$	1 million hours
CE Certificate		E0611042E