Typical Features

- ◆Wide input voltage range (2:1 or 4:1)
- ◆Typical transfer efficiency 85%
- ◆Switching frequency: 300KHz
- ◆Over current/Short circuit protection, Self-recovery
- ◆Input-output isolated
- ◆PCB mounting
- ◆Metal case, Low output ripple

Technical Parameters: **Test Condition:** Unless otherwise specified, data in the datasheet should be tested under the conditions of inputting nominal voltage, pure resistance rated load and Ta=25℃.

Input Specifications	Min(v)	Nom(v)	Max(v)	Notes
Input Voltage Vdc	9	12	18	2:1
	18	24	36	2:1
	36	48	72	2:1
	72	110	144	2:1
Remote Control (Low level)	ON	High level or Suspended-operating		3.5Vdc ~ +Vin
	OFF	Low level or connect to ground- Switch off		≤0.3Vdc
Input Under Voltage Protection	Lower than the low-end of input voltage, output switch off, Self-recovery			

Output Specifications			
Output Voltage Accuracy		Vo1	±1.0%(typ.)
Line Regulation	Nominal Load, full voltage range	Vo1	±0.2%
Load Regulation	20% ~ 100% nominal load	Vo1	±0.5%
Ripple & Noise	20MHz BM Full Load Vo≤5.0V, ≤50mVp-p; Vo≥48V, ≤180mVp-p; Other, ≤100mVp-p		
Dynamic Response	25% Nominal load step change	△Vo1/△t	±4.0/500μ s%
Output Voltage Adjustment	Nominal output voltage	TRIM	±10% Adjustable
Turn-on Delay Time	Typical value		≤200mS

General Specifications			
Switching Frequency		300KHz (Typical)	(Max.) 330KHz
Operating Temperature	Free air convection		-25℃ ~ +55℃

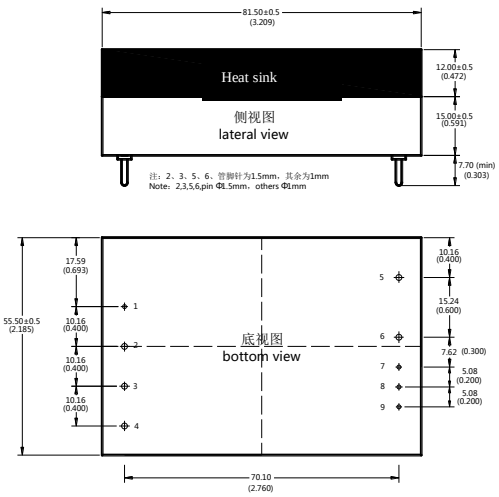
Storage Temperature			-40℃ ~ +105℃
Max Case Temperature			+100℃
Relative Humidity			10%~90%
Case Material	Metal case		
Isolation Voltage	Input-output 1500 Vdc ≤ 0.5mA/1min; Input-case 500Vdc ≤ 0.5mA / 1min		
Meantime Between Failures	$2X10^5$Hrs		

Typical Product List

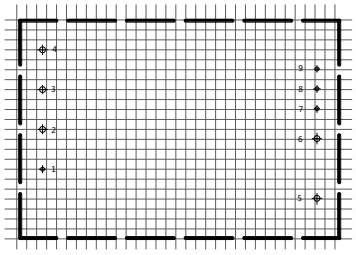
Part No.	Input voltage range	Output voltage/ current		Input Current Nominal Voltage (typ.)	Max. Capacitive Load	Efficiency (Typ.)
		Voltage(Vdc)	Current(mA)	Full load (mA)	μF	%
WD50-12S05K1	12 (9~18)	5	10000	5209	4700	80
WD50-12S12K1		12	4166	4902	1500	85
WD50-12S15K1		15	3300	4902	1000	85
WD50-12S24K1		24	2083	4902	680	85
WD50-24S05K1	24 (18~36)	5	10000	2541	4700	82
WD50-24S12K1		12	4166	2451	1500	85
WD50-24S24K1		24	2083	2423	680	86
WD50-48S05K1	48 (36~72)	5	10000	1240	4700	84
WD50-48S12K1		12	4166	1225	1500	85
WD50-48S24K1		24	2083	1198	680	87
WD50-110S05K1	110 (72~144)	5	10000	5412	4700	84
WD50-110S12K1		12	4166	535	1500	85
WD50-110S24K1		24	2083	523	680	87

Note: due to space limitations, above is only a part of our product list, please contact our sales team for more items.

Packing Dimension



Unit: mm(inch); Grid:2.54mm(0.1inch);
Printed board vertical view;
General tolerances: ±0.25mm;
General Pin Diameter tolerances: ±0.10mm



Pin Function

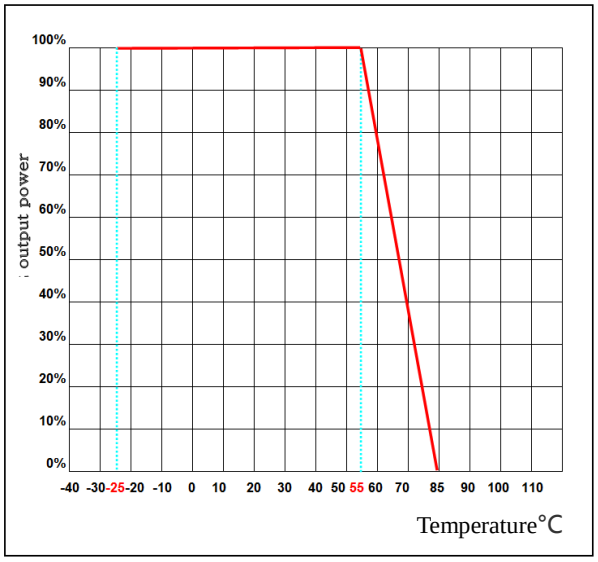
Single(S)	1	2	3	4	5	6	7	8	9
	CASE	+Vin	-Vin	REM	+Vout	GND	+S	TRIM	-S

* Note: If the definition of pin is not in accordance with the model selection manual, please refer to the label on actual item.

Packing Dimension

Packing Code	L x W x H	
K1	81.50 × 55.50 × 15.00mm	3.209 × 2.185 × 0.590inch

Temperature Curve

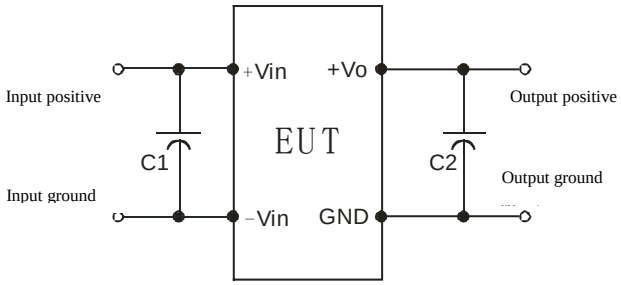


Test Application Reference

1.Recommended test circuit

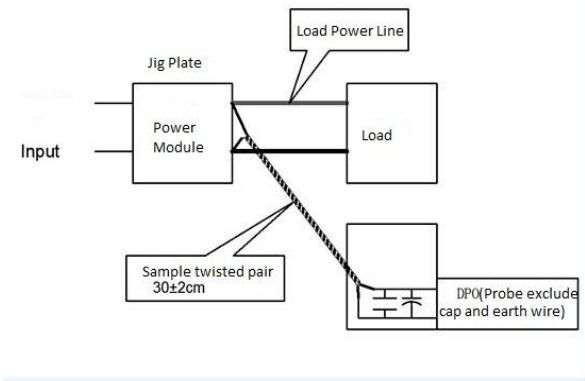
DC/DC test circuit:

Normal recommended capacitor:C1: 47-100μF;C2:10-22μF.



2.Ripple & Noise Test:(twisted pair method, 20MHZ bandwidth)

Test Method:

(1)12# twisted pair to connect, Oscilloscope bandwidth set as 20MHz, 100M bandwidth probe, terminated with 0.1uF polypropylene capacitor and 47uF high frequency low resistance electrolytic capacitor in parallel, oscilloscope set as Sample pattern.

(2) Input terminal connect to power supply, output terminal connect to electronic load through jig plate, Use 30cm±2 cm sampling line, Power line selected from corresponding diameter wire with insulation according to the flow of output current.