

LDC5 SERIES-5W DC/DC

- Wide input voltage range(2:1),single and double output
- Efficiency 80% Typ(5V)at full load
- DIP24 footprint:1.25×0.80×0.42(inch)
- No heatsink required
- 300KHZ frequency



General

Nominal line, $T_c=25^{\circ}\text{C}$, Rated pure resistance load unless otherwise specified

Input

Characteristics	Conditions	min	typ	max
V_i	Input voltage range	4.5	5	9VDC
		9.5	12	19VDC
		18	24	36VDC
		36	48	72VDC

Output

Characteristics	Conditions	min	typ	max
V_{oi}	Output voltage initial setting and accuracy $T_c=+25^{\circ}\text{C}, V_i=48\text{V}, I_o=I_{\text{omax}}$			
		-1.0%		+1.0%
		-3.0%		+3.0%
Line regulation	$I_o=I_{\text{omax}}$, Input voltage range			
		-0.2%		+0.2%
		-1.5%		+1.5%
Load regulation	$V_i=$ Nominal line, $I_o=0.1$ to I_{omax}			
		-0.5%		+0.5%
		-4.0%		+4.0%
Dynamic Response	$0.25I_{\text{omax}}$ to I_{omax} $\Delta V_{o1}/\Delta t$	-4.0%/500us		+4.0%/500us

Normal

Frequency(typ)		300KHz
Isolate resistance		100M Ω hm
Isolate voltage	Input to output	500VDC
	Input to case	500VDC
	Output to case	500VDC
Operation Case Temperature		-25 $^{\circ}\text{C}$ ~+100 $^{\circ}\text{C}$

Operation Ambient Temperature	Free Air and no Heatsink	-25℃~+55℃
Storage Temperature		-40℃~+105℃
Temperature Coefficient		200ppm
MTBF	Bellcore TR332,25℃	2X10 ⁶ Hrs
Safety		EN60950
Weight(typ)		16g(0.56 oz)

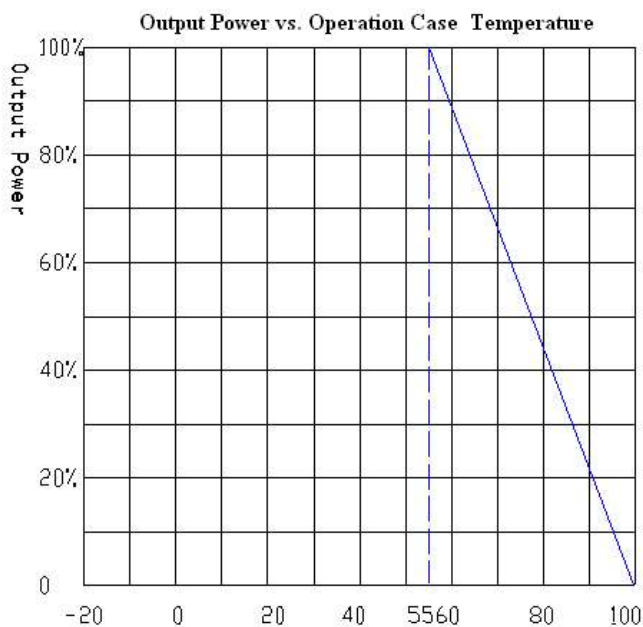
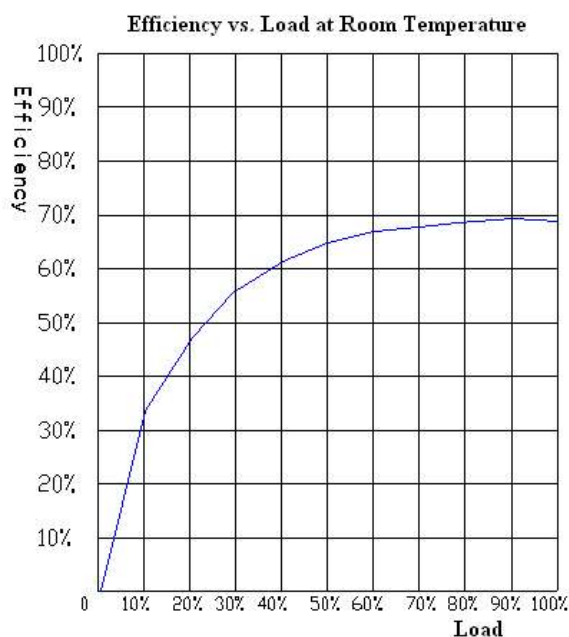
Product Lists

Input voltage range	Maximal input current I _{inmax} (A)	Output voltage and current initial setting			Efficiency (typ)	Output ripple and noise(mV) f<20 MHZ	Ordering Number
		Vo1(V)/Io1 (A)	Vo2(V)/Io2 (A)	Vo3(V)/Io3 (A)			
9.5~18		5/1			80%	50	LDC5-5S5
9.5~18		12/0.5			82%	100	LDC5-5S12
9.5~18		5/1			80%	50	LDC5-12S5
9.5~18		12/0.5			82%	100	LDC5-12S12
9.5~18		5/0.5	-5/-0.5		80%	50/50	LDC5-12D5
9.5~18		12/0.25	-12/-0.25		82%	100/100	LDC5-12D12
18~36		5/1			80%	50	LDC5-24S5
18~36		12/0.5			82%	100	LDC5-24S12
18~36		15/0.4			82%	150	LDC5-24S15
18~36		24/0.2			80%	150	LDC5-24S24
18~36		5/0.5	-5/-0.5		80%	50/50	LDC5-24D5
18~36		12/0.25	-12/-0.25		82%	100/100	LDC5-24D12
18~36		15/0.2	-15/-0.2		82%	150/150	LDC5-24D15
36~72		3.3/1.0			75%	50	LDC5-48S3V3
36~72		5/0.5			80%	50	LDC5-48S5
36~72		12/0.25			82%	10	LDC5-48S12
36~72		15/0.4			82%	150	LDC5-48S15
36~72		5/0.5	-5/-0.5		80%	50/50	LDC5-48D5
36~72		12/0.25	-12/-0.25		82%	100/100	LDC5-48D12
36~72		15/0.2	-15/-0.2		82%	150/150	LDC5-48D15

Notes:

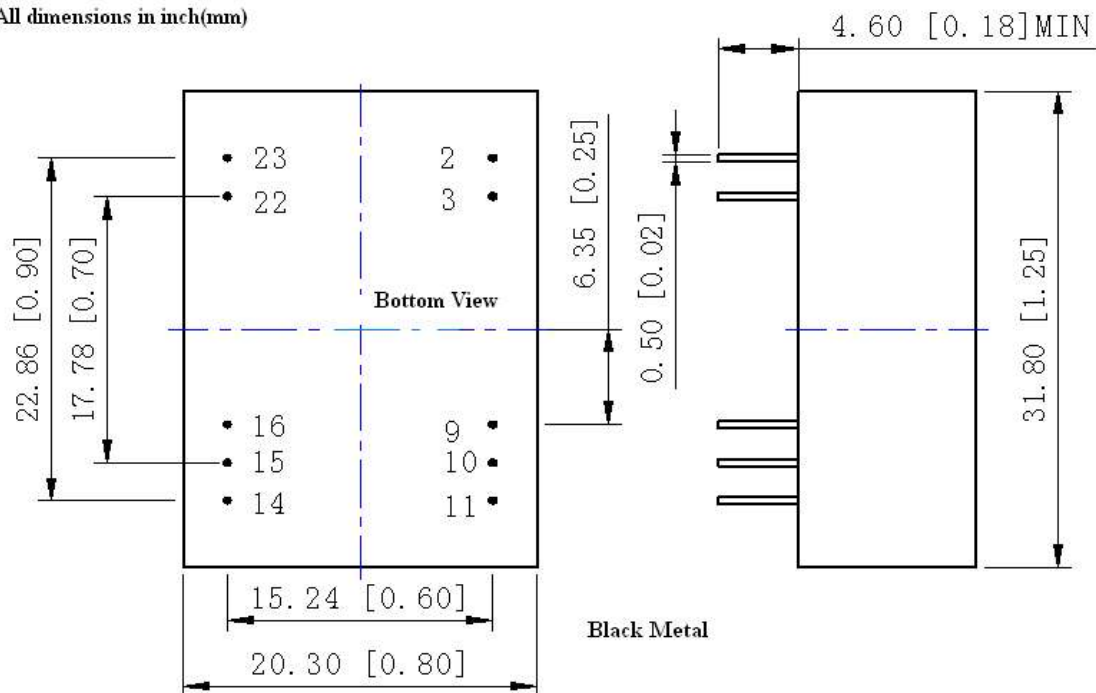
The parallel method is recommended for measuring output ripple and noise.(Reference to “PX~PX notes)

Characteristic Curves



Mechanical Data

All dimensions in inch(mm)



Pin material

Pin No.	Single	Double
2	Negative input(-Vin)	Negative input(-Vin)
3	Negative input(-Vin)	Negative input(-Vin)
9	No connection(NC)	Common GND(COM)
10	No connection(NC)	No connection(NC)
11	No connection(NC)	Positive output2(Vo2)
14	Positive output(Vo1)	Positive output1(Vo1)
15	No connection	No connection
16	Negative output(GND)	Common GND(COM)
22	Positive input(+Vin)	Positive input(+Vin)
22	Positive input(+Vin)	Positive input(+Vin)

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