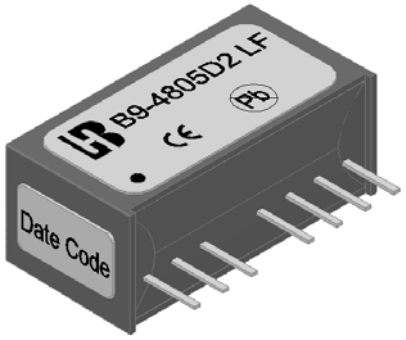
B9 LF - Series

2 Watt Isolated DC-DC Converter

Low Enable Dual Output

1 . *Features*

- Wide 2 : 1 Input Range
- Low Ripple And Noise
- Input / Output Isolation 1K Vdc
- 100 % Burn-In
- Input Filter With Internal Capacitor
- Custom Design Available
- Net Weight： 4.5 g Typical
- RoHS Converter Certified By SGS



2 . *Dual Output Selection Guide*

(Specifications typical at Ta= +25℃, Nominal input voltage, Rated output current unless otherwise noted)

Model No.	Input Voltage (Vdc)	Output Voltage (Vdc)	Output Current (mA) Max	Input Current @No Load (mA) Typ.	Input Current @Max. Load (mA) Typ.	Output Ripple (mV) Max.	Load Regulation (%)Max.	Efficiency (%)Typ.
Dual Output SIL Package Style								
B9-1205D2 LF	9-18	± 5	± 200	4	317	50	± 2	74
B9-1212D2 LF		± 12	± 84	4	300	100	± 2	78
B9-1215D2 LF		± 15	± 67	4	300	120	± 2	78
B9-2405D2 LF	18-36	± 5	± 200	4	161	50	± 2	73
B9-2409D2 LF		± 9	± 111	4	154	80	± 2	76
B9-2412D2 LF		± 12	± 84	4	154	100	± 2	76
B9-2415D2 LF		± 15	± 67	4	154	120	± 2	76
B9-4805D2 LF	36-75	± 5	± 200	4	78	50	± 2	75
B9-4809D2 LF		± 9	± 111	4	75	80	± 2	78
B9-4812D2 LF		± 12	± 84	4	75	100	± 2	78
B9-4815D2 LF		± 15	± 67	4	75	120	± 2	76

Notes :

1. Load regulation is for output current change from 0 % to 100 % Max. Load.

3 . Absolute Maximum Ratings

(Exceeding these values may damage the module. These are not continuous operating ratings)

Parameter	Condition	Min.	Typ.	Max.	Unit
Input Absolute Voltage Range	12V Input Model	-0.7	12	22.5	Vdc
	24V Input Model	-0.7	24	45	
	48V Input Model	-0.7	48	85	
Output Short Circuit Duration	Nominal Input Range	Indefinite & Auto-Restart			
Reverse Polarity Input Current Limit	---	---	---	1	A
Operation Temperature (Ambient Temperature)	Output Full Load	-25	---	+71	℃
Storage Temperature		-55	---	+105	

4 . Nominal Input/Output Electrical Specifications

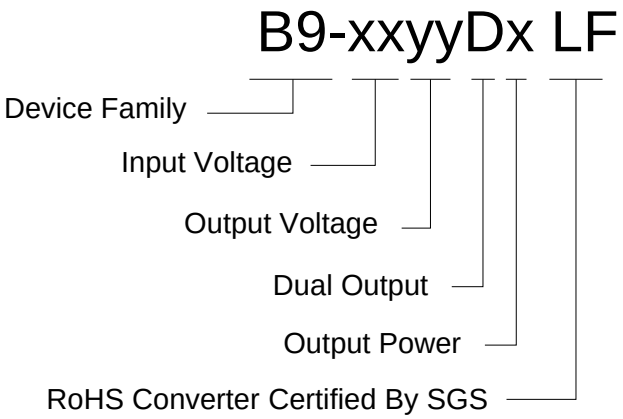
(Specifications typical at Ta= +25℃ ,Nominal input voltage, Rated output current unless otherwise noted)

Parameter	Condition	Min.	Typ.	Max.	Unit
Input Voltage Range	12V Input Model	9	12	18	Vdc
	24V Input Model	18	24	36	
	48V Input Model	36	48	75	
Line Regulation	Output Full Load	---	---	± 0.5	%
Load Regulation	Single Output Model	---	---	± 2	
Output Voltage Accuracy	Nominal Input	---	± 1.0	± 2.0	
Switching Frequency	Nominal Input	---	150	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / ℃
Isolation Voltage	60 Seconds / 0.5 mA	1000	---	---	Vdc
Isolation Resistance	500 Vdc	1000	---	---	MΩ
Low Enable Signal Logic Level Pin3 (Ve)	Output Voltage=>Hi	No Connection (Floating)			
		0	---	0.4	Vdc
	Output Voltage=>Low	2.5	---	5.0	

5 . General Specification

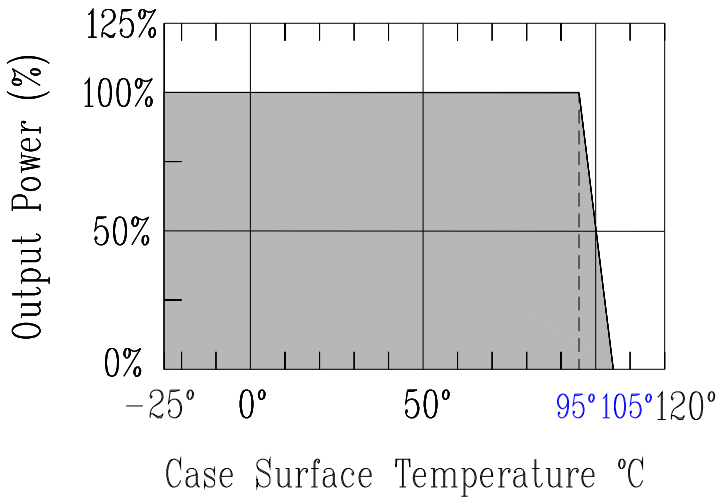
Parameter	Specification	Condition
Isolation Voltage	1000 Vdc	Test Duration 60 Seconds / 0.5 mA
Isolation Resistance	1000 MΩ Min.	@ 500 Vdc
Operating Temperature (1)	-25℃ ~ +71℃	@ Ambient Temperature With Natural Convention
Operating Temperature (2)	-25℃ ~ +95℃	@ Case Surface Temperature
Storage Temperature	-55℃ ~ +105℃	---
Humidity	Up To 90 %	---
Cooling	Free Air Convection	---
Case Type	Plastic	---

6 . Ordering Information



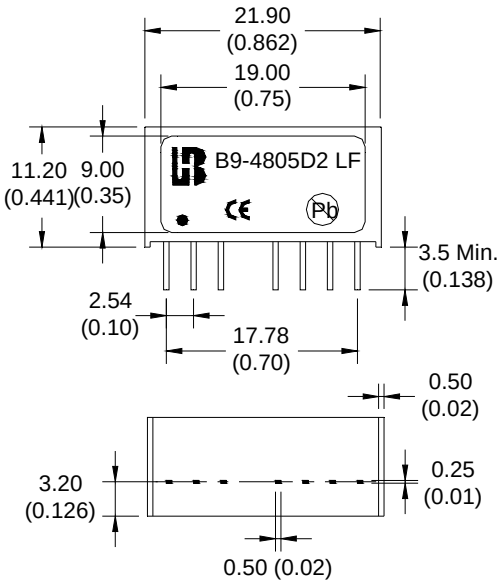
7 . Power Derating Curve

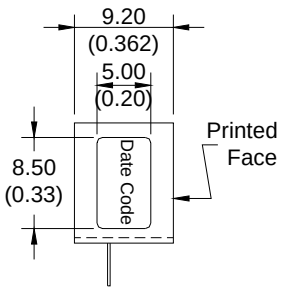
Temperature derating graph



8 . Mechanical Dimension

Metal Case Mode

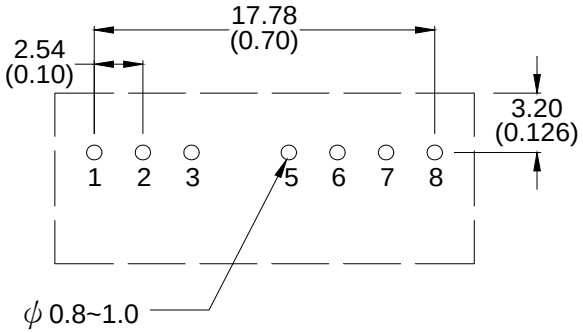




Units:mm(inch)
Tolerance:xx±0.25(±0.01)

Pin	1 K Vdc-Single
1	-Vin
2	+Vin
3	Ve
4	No Pin
5	NC
6	Vo (+)
7	Common
8	Vo (-)

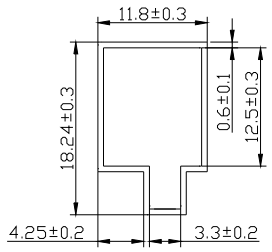
9 . Recommended Footprint Details

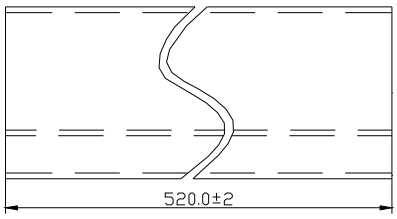


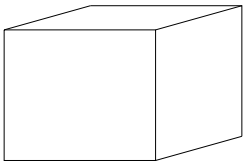
Units : mm (inch)

Tolerance : 0.xx ± 0.25 (0.xx ± 0.01)

10 . *Package*

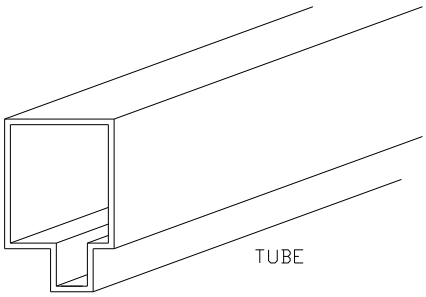


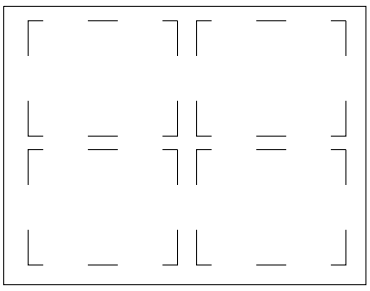




INNER CARTON:565*115*117

TUBE MECHANICAL DIMENSION





EXPORT CARTON:580*255*265

1. TUBE=23PCS
2. INNER CARTON=45 TUBE=45*23=1035PCS
3. EXPORT CARTON=4 INNER CARTON=4*1035=4140PCS