

Features

- RoHS compliant
- Efficiency up to 83%
- 1kVDC Isolation
- Single output
- Short circuit protection(Suffix “ R2 ” only SIP,optional)
- Industry standard required
- Wide temperature performance at full 2 Watt load,-40 to 85



Model Selection Guide

Order Code	Vin(V)		Output		Max capacitive Load	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
B0505S/D-2W(R2)	5	4.5-5.5	5	400	330	80
B0509S/D-2W(R2)			9	222	220	83
B0512S/D-2W(R2)			12	167	220	83
B0515S/D-2W(R2)			15	133	220	84
B0524S/D-2W(R2)			24	83	150	82
B1205S/D-2W(R2)	12	10.8-13.2	5	400	330	81
B1209S/D-2W(R2)			9	222	220	81
B1212S/D-2W(R2)			12	167	220	84
B1215S/D-2W(R2)			15	133	220	82
B1224S/D-2W(R2)			24	83	150	80
B2405S/D-2W(R2)	24	21.6-26.4	5	400	330	80
B2409S/D-2W(R2)			9	222	220	83
B2412S/D-2W(R2)			12	167	220	83
B2415S/D-2W(R2)			15	133	220	83
B2424S/D-2W(R2)			24	83	150	84

* All the specifications typical at Ta=+25 resistive load, nominal input voltage and rated output current unless otherwise noted.

Input Characteristics

Parameter	Condition	Min	Typ	Max	Units
Input Surge Voltage (1 sec. Max.)	3.3V Input Models	-0.7	--	6	VDC
	5V Input Models	-0.7	--	9	
	12V Input Models	-0.7	--	18	
	24V Input Models	-0.7	--	30	
Input Filter	All Models	Internal Capacitor			

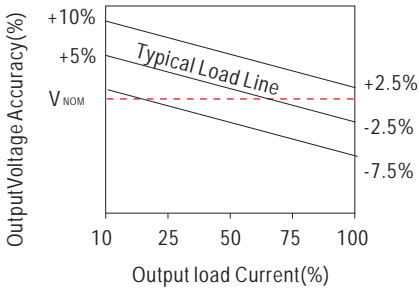
Output Characteristics

Parameter	Condition	Min	Typ	Max	Units
Line regulation	Vin change 1%	±1.2	--	±1.5	%
Switching frequency	Full load,nominal input	--	100	--	KHz
Load regulation	10% ~ 100% load	6.5	--	15	%
Ripple and noise	BW=DC to 20MHz	--	75	100	mVp-p
Short circuit Protection	Suffix “ R2 ”	Continuous,Automatic Recovery			

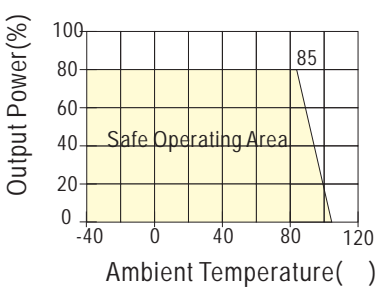
General Characteristics

Parameter	Condition	Min	Typ	Max	Units
Operating Temperature	All output types	-40	--	+85	
Storage		-55	--	+125	
Storage humidity		--	--	+95	%
Cooling	Free air convection	--	--	--	
Isolation voltage	1mA 1minute	1000	--	--	VDC
Isolation resistance	500VDC	1000	--	--	M
Switching Frequency		--	100	110	KHz
MTBF	3.5 × 10 ⁶				K hours

Tolerance Envelopes Curve

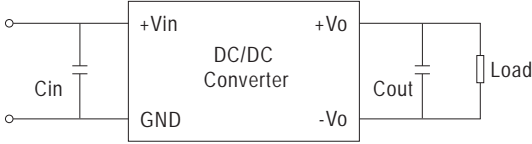


Temperature Derating Graph Curve



Input/Output Ripple Reduction

Reduce output ripple, it is recommended to use capacitors at the input/output.



External Capacitor Table

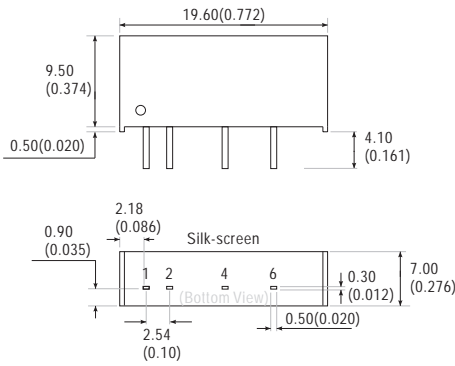
Vin(VDC)	5	12	15	24	
Cin(uF)	4.7	2.2	2.2	1	
Vout(VDC)	5	9	12	15	24
Cout(uF)	10	4.7	2.2	1	0.47

Note

- 1.To ensure this module can operate efficiently and reliably, During operation, the minimum output load is not less than 10% of the full load.
- 2.Other input and output voltage may be available, please
- 3.Specifications subject to change without notice

Mechanical Dimension & Pin Connections

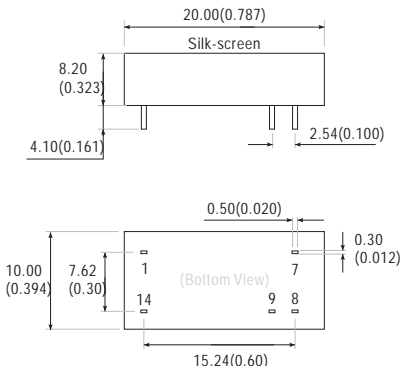
B****S-2W



Pin	1	2	4	6
Function	Vin	GND	-Vo	+Vo

Note:
Unit:mm(inch)

B****D-2W



Pin	1	7	8	9	14
Function	GND	NC	-Vo	+Vo	Vin