

**DBE-1 SERIES, 1WATT, 1KVDC, UNREGULATED**

**FEATURES:**

- ✓ 1000Vdc isolation voltage
- ✓ Compact size
- ✓ Operating temperature range -40°C to +85°C
- ✓ 3 year warranty



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)		Efficiency Typ.
			Min.	Max.	
DBE1-0310	3.3(2.97~3.63)	3.3	30	300	80%
DBE1-0311		5	20	200	80%
DBE1-0312		9	11	110	80%
DBE1-0313		12	8.3	83	80%
DBE1-0314		15	6.8	68	80%
DBE1-0315		24	4.2	42	80%
DBE1-0510	5(4.5~5.5)	3.3	30	300	80%
DBE1-0511		5	20	200	80%
DBE1-0516		7.2	13.8	138	78%
DBE1-0512		9	11	110	80%
DBE1-0513		12	8.3	83	80%
DBE1-0514		15	6.8	68	80%
DBE1-0515	24	4.2	42	80%	
DBE1-1210	12(10.8~13.2)	3.3	30	300	80%
DBE1-1211		5	20	200	80%
DBE1-1212		9	11	110	80%
DBE1-1213		12	8.3	83	80%
DBE1-1214		15	6.8	68	80%
DBE1-1215		24	4.2	42	80%
DBE1-1514	15(13.5~16.5)	15	6.8	68	78%
DBE1-2410	24(21.6~26.4)	3.3	30	300	80%
DBE1-2411		5	20	200	80%
DBE1-2412		9	11	110	80%
DBE1-2413		12	8.3	83	80%
DBE1-2414		15	6.8	68	80%
DBE1-2415		24	4.2	42	80%

Notes: 1. other input and output models may available on request;

2. Add suffix "P" for short circuit protection.

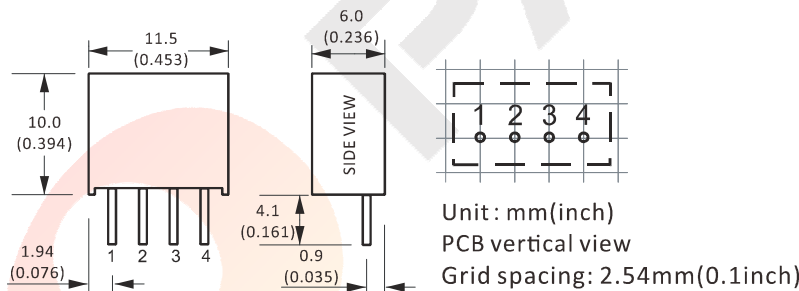
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**ELECTRICAL**

Output voltage accuracy	---	±5% max.
Line regulation	---	± 1.2%
Load regulation	10% ~ 100% full load	15% max.
Switching frequency	---	100KHz
Ripple and noise	---	100mVp-p max.
Isolation voltage	---	1000Vdc
Short circuit protection	Only available for "DBE1-xx1xP" product	Continuous, auto-recovery
Operating temperature range	---	-40°C to +85°C
Storage temperature range	5%~95%, non-condensing	-40°C to +85°C
Temperature coefficient	---	±0.03%/°C
MTBF	MIL-HDBK-217F@25°C	3500KHrs
Weight	---	1.3g

**Notes: All the parameters are measured at 25°C ambient temperature, humidity < 75%, nominal input voltage, full load and after warm-up, unless otherwise specified.**

**MECHANICAL**



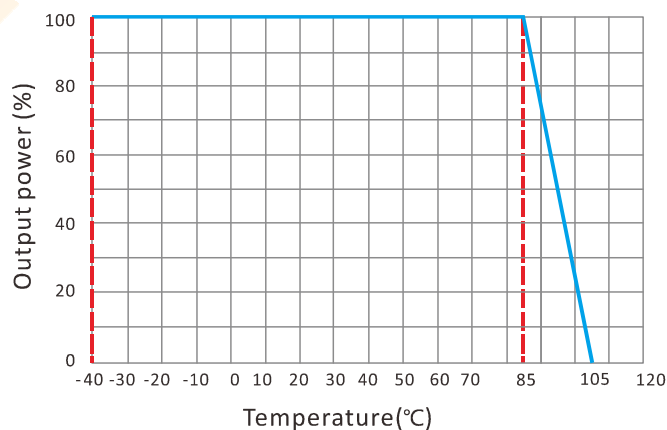
**CONNECTION**

PIN #	SINGLE
1	GND
2	+Vin
3	-Vo
4	+Vo

Note:

\* Unit is mm(inch).

**TEMPERATURE PROFILE**



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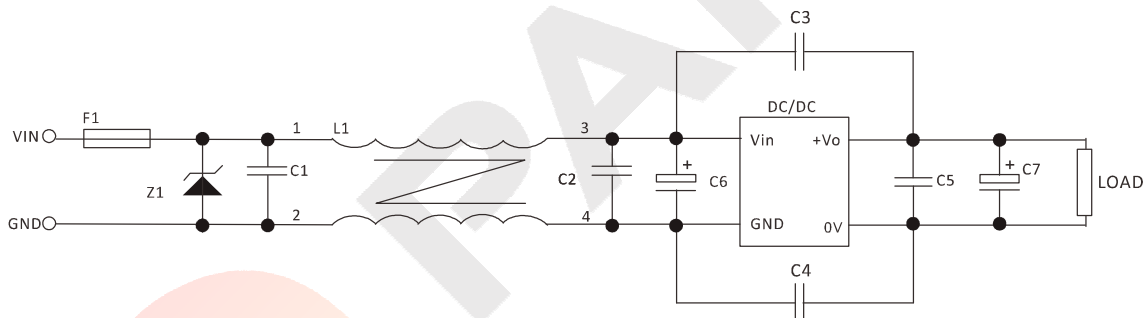
CAPACITIVE LOADS SELECTION

Vin (Vdc)	Cin (μF)	Single Output Voltage (Vdc)	Cout (μF)	Dual Output Voltage (Vdc)	Cout (μF)
3.3/5	4.7	5	10	±5	4.7
12	2.2	9	4.7	±9	2.2
24	1	12	2.2	±12	1
-	-	15/24	1	±15	0.47

NOTES

RECOMMENDED TEST AND APPLICATION CIRCUIT

In order to ensure the efficiency and dependability of the module, the minimum specified load must be less than 10% of rated load. If the output power is low, we recommend to add an external 10% loading resistor in parallel.



FUSE: depends on the actual input current;

TVS: depends on the actual input voltage;

Recommended capacitor: C1, C2, C5, about 0.1μF; for C6, C7, please check the capacitive load; C3, C4: 2KV/1nF.