1W DC-DC Unregulated Single Output Converter

SBT01 series

■ Features :

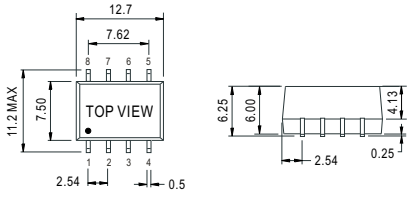
- 1000VDC I/O isolation
- Internal SMD technology
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- SMD package styles
- 100% full load burn-in test
- Low cost / High reliability
- Approved: UL / CUL

SPECIFICATION

ORDER NO.			SBT01L-05	SBT01M-05	SBT01L-09	SBT01M-09	SBT01L-12	SBT01M-12	SBT01L-15	SBT01M-15
OUTPUT	DC OUTPUT VOLTAGE		5V		9V		12V		15V	
	OUTPUT CURRENT RANGE		0 ~ 200mA		0 ~ 111mA		0 ~ 84mA		0 ~ 67mA	
	EFFICIENCY		70%	72%	74%	75%	74%	75%	75%	75%
	RATED POWER		1W							
	RIPPLE & NOISE (max.) Note.2		100mVp-p							
	LINE REGULATION Note.3		±1.2% for 1% input variation							
	LOAD REGULATION Note.4		±8.0%							
	VOLTAGE TOLERANCE		±8.0%							
	SWITCHING FREQUENCY(Typ.)		100KHz							
INPUT	VOLTAGE RANGE		4.5 ~ 5.5V	10.8 ~ 13.2V	4.5 ~ 5.5V	10.8 ~ 13.2V	4.5 ~ 5.5V	10.8 ~ 13.2V	4.5 ~ 5.5V	10.8 ~ 13.2V
	NORMAL VOLTAGE		5V	12V	5V	12V	5V	12V	5V	12V
	INPUT CURRENT	Full load	292mA	120mA	292mA	120mA	292mA	120mA	292mA	120mA
		No load	29mA	15mA	29mA	15mA	29mA	15mA	29mA	15mA
	PROTECTION		Fuse recommended							
PROTECTION	OVERLOAD		Momentary							
			Protection type : Broken							
	SHORT CIRCUIT		Momentary							
			Protection type : Broken							
ENVIRONMENT	WORKING TEMP.		-40 ~ +85℃ (Refer to output load derating curve)							
	WORKING HUMIDITY		20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY		-40 ~ +105℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT		±0.03% / ℃ (0 ~ 50℃)							
	VIBRATION		10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC	SAFETY STANDARDS		UL60950-1, CSA C22.2							
	WITHSTAND VOLTAGE		I/P-O/P:1KVDC							
	ISOLATION RESISTANCE		I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH							
OTHERS	MTBF		500khrs min. MIL-HDBK-217F(25℃)							
	DIMENSION		12.7*7.5*6.0mm or 0.50"*0.30"*0.24" inch (L*W*H)							
	WEIGHT		1.3g							

■ Mechanical Specification

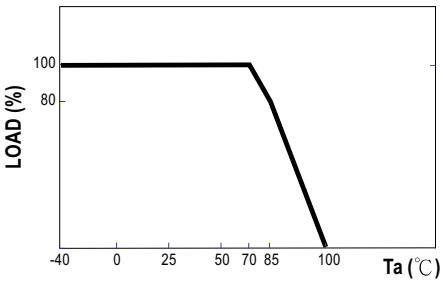
Unit: mm (inch)



■ Pin Configuration

Pin No.	Output
1	-Vin
2	+Vin
3	NC
4	-Vout
5	+Vout
6	NC
7	NC
8	NC

■ Derating Curve



NOTE

1.All parameters are specified at normal input, rated load, 25℃ 70% RH ambient.
2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
3.Line regulation is measured from low line to high line at rated load.
4.Load regulation is measured from 20% to 100% rated load.

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