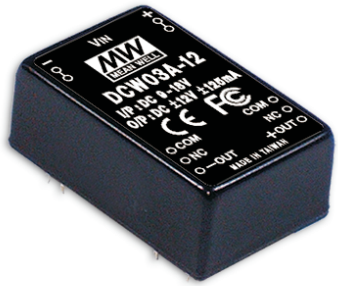
3W DC-DC Regulated Dual Output Converter

DCW03 series



Features :

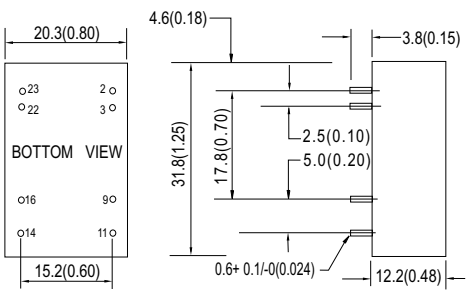
- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Five-sided shield metal case
- 100% burn-in test
- Low cost / High reliability
- Approvals: FCC / CE
- 2 years warranty

SPECIFICATION

ORDER NO.		DCW03A-05	DCW03B-05	DCW03C-05	DCW03A-12	DCW03B-12	DCW03C-12	DCW03A-15	DCW03B-15	DCW03C-15
OUTPUT	DC VOLTAGE	±5V			±12V			±15V		
	CURRENT RANGE	±30 ~ ±300mA			±12.5 ~ ±125mA			±10 ~ ±100mA		
	RATED POWER	3W								
	RIPPLE & NOISE (max.) Note.2	50mVp-p			60mVp-p			60mVp-p		
	LINE REGULATION Note.3	±0.5%								
	LOAD REGULATION Note.4	±0.5%								
	VOLTAGE ACCURACY	±2.0%								
	SWITCHING FREQUENCY	50KHz min.								
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC								
	EFFICIENCY (Typ.)	74%	75%	76%	80%	80%	82%	80%	80%	82%
	DC CURRENT	Full load	A: 338mA B: 167mA C: 83mA							
		No load	A: 18mA B: 10mA C: 5mA							
	FILTER	Pi network								
	PROTECTION	Fuse recommended								
PROTECTION (Note. 5)	OVERLOAD	160 ~ 250% rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	SHORT CIRCUIT	All output equipped with short circuit								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
ENVIRONMENT	WORKING TEMP.	-25 ~ + 71℃ (Refer to output load derating curve)								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-25 ~ +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	WITHSTAND VOLTAGE	I/P-O/P:1KVDC								
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25℃/ 70% RH								
	ISOLATION CAPACITANCE	80pF max.								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A								
OTHERS	MTBF	900khrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	31.8*20.3*12.2mm or 1.25"*0.80"*0.48" inch (L*W*H)								
	WEIGHT	15g								

Mechanical Specification

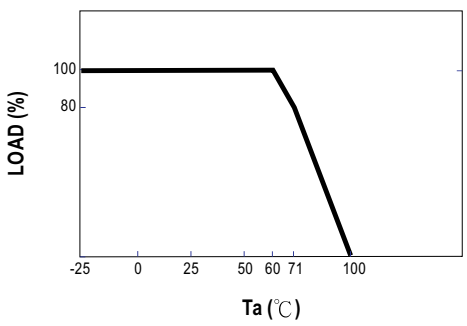
Unit:mm(inch)



Pin Configuration

Pin No.	Output
2 & 3	-Vin
9	COM
11	-Vout
14	+Vout
16	COM
22 & 23	+Vin

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 10% to 100% rated load.
5.Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.