



5 Watt DC/DC Converters

FEATURES

- COMMERCIAL, CLASS H and CLASS K SCREENING
- PIN FOR PIN COMPATABILITY
- 16 – 40 VOLT & 36 – 80 VOLT INPUT RANGES
- OUTPUT VOLTAGES TO INCLUDE: 3.3, 5, 12, 15, ± 5 , ± 12 , ± 15
- FULLY ISOLATED
- SHORT CIRCUIT PROTECTION
- INPUT UNDERVOLTAGE LOCKOUT
- OUTPUT OVERVOLTAGE LIMIT
- INHIBIT FUNCTION & OPTIONAL SYNC



DESCRIPTIONS

The MPT 5 Watt DC/DC converters will provide a new level of performance with-out the high price and long lead times of other class H or class K devices. Utilizing thick film hybrid technology, industry leading manufacturing techniques and DC/DC converter design expertise, MPT can provide a new source for DC/DC converters in the commercial, military, aerospace, and space markets.

In a 1.075" x 1.075" x 0.270", pin for pin compatible, hermetically sealed package, the light weight, MPT, 5 Watt converters will offer industry standard performance up to 5 Watts at efficiencies up to 80% at the standard military temperature range of -55°C to 125°C for class H and K devices.

Singles Electrical Characteristics (25°C Tc, 28 VDC Vin, 100% load):

Parameter	3.3 Vout			5 Vout			12 Vout			15 Vout			Units
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Input Voltage	16	28	40	16	28	40	16	28	40	16	28	40	Volts
Input Ripple Current	-	-	50	-	-	50	-	-	50	-	-	50	mA p-p
Output Voltage	3.27	3.3	3.33	4.95	5	5.05	11.88	12	12.12	14.85	15	15.15	Volts
Output Current	-	-	1500	-	-	1000	-	-	417	-	-	333	mA
Output Power	-	-	5	-	-	5	-	-	5	-	-	5	Watts
Efficiency	-	-	75	-	-	78	-	-	80	-	-	80	%
Line Regulation	-	10	30	-	10	50	-	10	50	-	10	50	mV
Load Regulation	-	10	30	-	10	50	-	10	50	-	10	50	mV
Output Ripple Voltage	-	65	150	-	100	300	-	50	150	-	50	250	mV p-p

DUALS ELECTRICAL CHARACTERISTICS (25°C Tc, 28 VDC Vin, 100% load):

	±5 Vout			±12 Vout			±15 Vout			
Parameter	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Units
Input Voltage	16	28	40	16	28	40	16	28	40	Volts
Input Ripple Current	-	-	50	-	-	50	-	-	50	mAp-p
+ Output Voltage	4.95	5	5.05	11.88	12	12.12	14.85	15	15.15	Volts
- Output Voltage	4.95	-5	5.05	11.88	12	12.12	14.85	15	15.15	Volts
Output Current	-	-	±500	-	-	±209	-	-	±167	mA
Output Power	-	-	5	-	-	5	-	-	5	Watts
Efficiency	-	-	75	-	-	78	-	-	80	%
+ Line Regulation	-	10	50	-	10	50	-	10	50	mV
- Line Regulation	-	10	50	-	10	50	-	10	50	mV
+ Load Regulation	-	10	50	-	10	50	-	10	50	mV
- Load Regulation	-	10	50	-	10	50	-	10	50	mV
Output Ripple Voltage	-		300	-		500	-	300	500	mV p-p

PINOUT:

Pin no.	Single Output	Dual Output
1	Positive Output	Positive Output
2	Output Common	Output Common
3	No Connection	Negative Output
4	No Connection	No Connection
5	Inhibit	Inhibit
6	Positive Input	Positive Input
7	Input Common	Input Common
8	Case Ground	Case Ground

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