



30 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 30 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 2.125" x 1.125" x 0.400", pin for pin compatible, hermetically sealed package, the MPT 30 Watt converters will offer industry standard performance up to 30 Watts at efficiencies up to 83% at the standard military temperature range of -55C to 125C for class H and K devices.

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

	3.3 Vout			5 Vout			12 Vout			15 Vout			
Parameter	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Units
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	-	-	9000	-	-	6000	-	-	2500	-	-	2000	mA
Output Power	-	-	30	-	-	30	-	-	30	-	-	30	Watts
Efficiency	-	-	75	-	-	78	-	-	83	-	-	83	%
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	300	500		300	500		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	mA p-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	-	-	±3000	-	-	±1250	-	-	±1000	mA
Output Power	-	-	30	-	-	30	-	-	30	Watts
Efficiency	-	-	78	-	-	80	-	-	80	%
Line Regulation	-	10	50	-	10	50	-	10	50	mV
Load Regulation	-	10	50	-	10	50	-	10	50	mV
Output Ripple Voltage	-	100	300	300	500		-	300	500	mV p-p

PINOUT:

Pin no.	Single Output	Dual Output
1	Positive Input	Positive Input
2	Inhibit	Inhibit
3	Sense Return	Positive Output
4	Output Common	Output Common
5	Positive Output	Negative Output
6	Positive Sense	Case Ground
7	Case Ground	Case Ground
8	Case Ground	Case Ground
9	Sync	Sync
10	Input Common	Input Common

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