

M802 SERIES

THE MOST COMPLETE
MINIATURE, HIGH DENSITY,
EIGHT OUTPUTS,
DC/DC CONVERTERS
(UP TO 145W)

APPLICATIONS

Military, Ruggedized, Telecom, Industrial



SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- External synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +90°C (baseplate)

Storage -55°C to +125°C

RELIABILITY

150,000 hours, calculated per
MIL-STD-217F at +85°C baseplate,
ground fixed.

ELECTRICAL SPECIFICATIONS

DC INPUT

DC Input range: 18 to 70 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: up to 80%

EMI/RFI:

Design to meet or exceed MIL-STD-461C

CE03, CE07, CS01, CS02, CS06, RE02, RS02, RS03

Isolation:

200V between Input and Output

200V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:

Less than 1% (no load to full load, -55°C to +90°C)

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting:

Continuous protection for unlimited time

Over voltage protection:

Passive tranzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of +105°C (±5°C)

Automatic recovery at baseplate temperature

lower than +95°C (±5°C)

Isolation:

200V between Output and Input

100V between Output and Case



DIVISION OF QUASAR POWER TECHNOLOGIES INC.

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Rev 1-; Date 2013-12-09

P.O. BOX 810, 7 FIELD LANE RD., ROUTE 106, BELMONT, NEW HAMPSHIRE 03220, U.S.A.
TEL: (603)267-8865, FAX: (603)267-7258 WEBSITE: www.milpower.com

SELECTION GUIDE for DASH -1, -2, -7

Model	Regulation, Typical	Ripple, Typical (20 MHz BW)
M802-1, -2, -7	± 1%	50 mVp-p

Model	Input	Output #1	Output #2	Output #3	Output #4	Output #5	Output #6	Output #7	Output #8
M802-1	18-36VDC	5.2V/3.75A	3.3V/2A	1.8V/2A	15V/3A	-15V/3A	5.2V/1.25A	18V/0.5A	-18V/0.5A
M802-2	18-36VDC	5.2V/3.75A	N.C.	N.C.	15V/4.2A	-15V/4.2A	5.2V/1.25A	18V/0.5A	-18V/0.5A
M802-7	18-36VDC	5.2V/4A	3.3V/4.5A	1.3V/2A	15V/3A	-15V/3A	5.2V/1.25A	+18V/0.50A	-18V/0.50A

Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT for DASH -1, -2,-7

PIN No.	PIN Function	PIN No.	PIN Function	PIN No.	PIN Function
1	OUT 6	13	VIN	25	SIGNAL RTN **
2	OUT 6	14	VIN	26	INHIBIT
3	OUT 5	15	OUT 1	27	OUT 4
4	OUT 5	16	OUTS 1, 2, 3 RTN *	28	VIN RTN
5	OUTS 4, 5 RTN *	17	OUT 2	29	VIN RTN
6	OUT 8	18	OUT 3	30	VIN
7	OUTS 7, 8 RTN *	19	OUT 6 RTN	31	VIN
8	OUT 7	20	OUT 6 RTN	32	OUT 1
9	OUT 4	21	OUT 5	33	OUTS 1, 2, 3 RTN *
10	OUT 4	22	OUTS 4, 5 RTN *	34	OUTS 1, 2, 3 RTN *
11	VIN RTN	23	OUTS 4, 5 RTN *	35	OUT 2
12	VIN RTN	24	SYN IN	36	OUT 3

*Same Ground for outputs numbers in current PIN

** ground for INHIBIT and SYN IN.

SELECTION GUIDE for DASH -4, -5, -6, -8

Model	Regulation, Typical	Ripple, Typical (20 MHz BW)
M802-4,-5,-6,-8	± 1%	50 mVp-p

Model	Input	Output #1	Output #2	Output #3	Output #4	Output #5	Output #6	Output #7	Output #8
M802-4	18-36VDC	28V/1.25A	28V/1.25A	5V/5A	3.3V/7.0A	2.5V/2A	1.5V/2A	+15V/1A	-15V/1A
M802-5	15-45VDC	28V/1.25A	28V/1.25A	5V/3A	5V/5A	3.3V/8.0A	2.5V/4A	+15V/1A	-15V/1A
M802-6	18-36VDC	28V/1.25A	28V/1.25A	5V/2A	3.3V/7.0A	5V/3A	N.C.	+15V/0.9A	-15V/0.9A
M802-8	18-36VDC	5V/4A	28V/1.25A	5V/5A	3.3V/8A	2.5V/4A	1.5V/3A	+15V/1A	-15V/1A

PIN ASSIGNMENT for DASH -4, -5, -6, -8

PIN No.	PIN Function	PIN No.	PIN Function	PIN No.	PIN Function
1	OUT 3	13	VIN	25	OUT 4
2	OUT 3	14	VIN	26	OUT 1 RTN
3	OUT 2 RTN	15	OUT 4	27	OUT 1
4	OUT 2 RTN	16	OUTS 4, 5, 6 RTN *	28	VIN RTN
5	OUT 2	17	OUT 5	29	VIN RTN
6	OUT 8 ***	18	OUT 6	30	VIN
7	OUTS 7, 8 RTN *	19	OUT 3 RTN	31	VIN
8	OUT 7	20	OUT 3 RTN	32	OUT 4
9	OUT 1 RTN	21	SIG RTN **	33	OUTS 4, 5, 6 RTN *
10	OUT 1	22	OUT 2	34	OUTS 4, 5, 6 RTN *
11	VIN RTN	23	INHIBIT	35	OUT 5
12	VIN RTN	24	SYN IN	36	OUT 6

- * Same Ground for outputs numbers in current PIN
- ** Ground for INHIBIT and SYN IN.
- *** Negative output

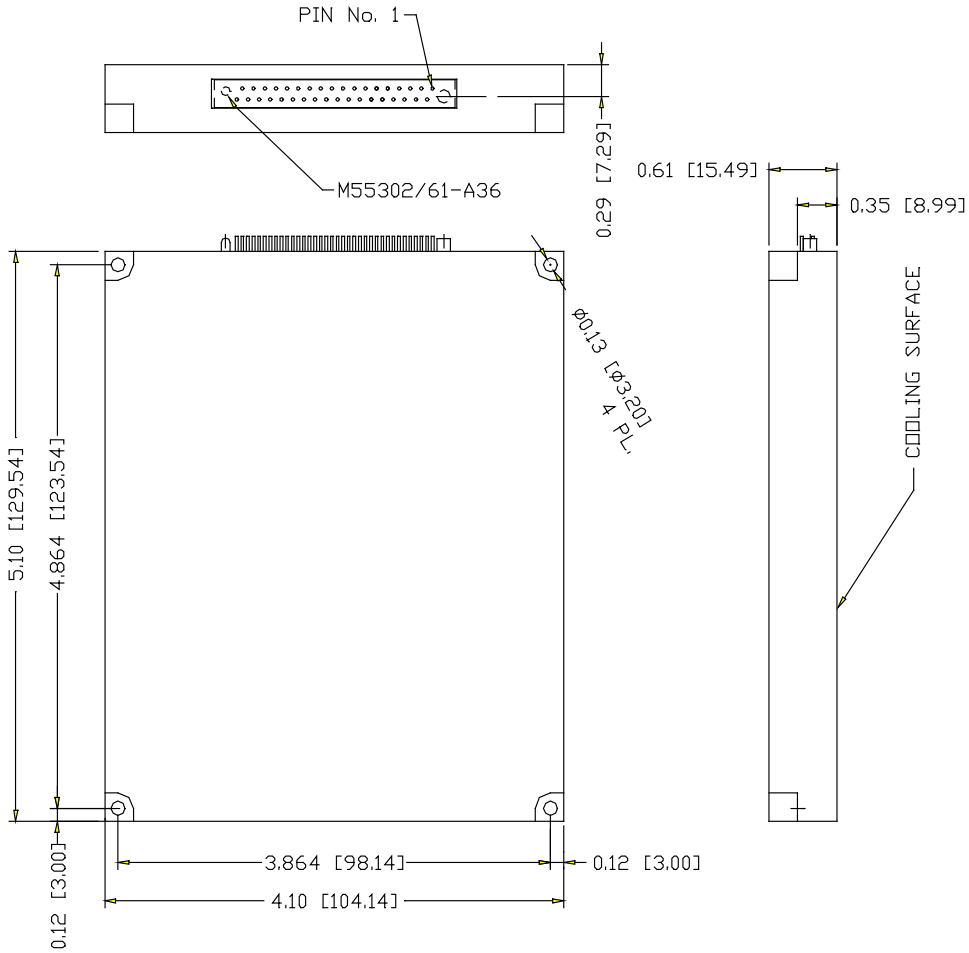


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OUTLINE DRAWING



* Specifications are subject to change without prior notice by the manufacturer

Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
.XX ±0.01 IN
.XXX ±0.005 IN
3. Weight: Approx. 14 Oz (400 gr)