aimtec
Your Power Partner

Series AM3F-Z

3 Watt | DC-DC Converter



FEATURES:

- RoHS compliant
- 12 Pin SIP Package
- Low ripple and noise
- High efficiency up to 72%
- Operating temperature -25°C to + 71°C
- Input / Output isolation 1000, 3000 and 5200VDC
- Pin compatible with multiple manufacturers
- Regulated single output

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM3F-0503SZ	4.5-5.5	3.3	800	1000	470	53
AM3F-0505SZ	4.5-5.5	5	600	1000	470	67
AM3F-0507SZ	4.5-5.5	7.2	417	1000	470	64
AM3F-0509SZ	4.5-5.5	9	333	1000	470	67
AM3F-0512SZ	4.5-5.5	12	250	1000	470	72
AM3F-0515SZ	4.5-5.5	15	200	1000	470	72
AM3F-0518SZ	4.5-5.5	18	167	1000	470	65
AM3F-0524SZ	4.5-5.5	24	125	1000	470	70
AM3F-1203SZ	10.8-13.2	3.3	800	1000	470	55
AM3F-1205SZ	10.8-13.2	5	600	1000	470	67
AM3F-1207SZ	10.8-13.2	7.2	417	1000	470	64
AM3F-1209SZ	10.8-13.2	9	333	1000	470	67
AM3F-1212SZ	10.8-13.2	12	250	1000	470	72
AM3F-1215SZ	10.8-13.2	15	200	1000	470	72
AM3F-1218SZ	10.8-13.2	18	167	1000	470	66
AM3F-1224SZ	10.8-13.2	24	125	1000	470	70
AM3F-2403SZ	21.6-26.4	3.3	800	1000	470	55
AM3F-2405SZ	21.6-26.4	5	600	1000	470	65
AM3F-2407SZ	21.6-26.4	7.2	417	1000	470	61
AM3F-2409SZ	21.6-26.4	9	333	1000	470	65
AM3F-2412SZ	21.6-26.4	12	250	1000	470	70
AM3F-2415SZ	21.6-26.4	15	200	1000	470	70
AM3F-2418SZ	21.6-26.4	18	167	1000	470	66
AM3F-2424SZ	21.6-26.4	24	125	1000	470	72
AM3F-0503SH30Z	4.5-5.5	3.3	800	3000	470	53
AM3F-0505SH30Z	4.5-5.5	5	600	3000	470	67
AM3F-0507SH30Z	4.5-5.5	7.2	417	3000	470	64
AM3F-0509SH30Z	4.5-5.5	9	333	3000	470	67
AM3F-0512SH30Z	4.5-5.5	12	250	3000	470	72
AM3F-0515SH30Z	4.5-5.5	15	200	3000	470	72
AM3F-0518SH30Z	4.5-5.5	18	167	3000	470	65
AM3F-0524SH30Z	4.5-5.5	24	125	3000	470	70
AM3F-1203SH30Z	10.8-13.2	3.3	800	3000	470	55
AM3F-1205SH30Z	10.8-13.2	5	600	3000	470	67
AM3F-1207SH30Z	10.8-13.2	7.2	417	3000	470	64
AM3F-1209SH30Z	10.8-13.2	9	333	3000	470	67
AM3F-1212SH30Z	10.8-13.2	12	250	3000	470	72
AM3F-1215SH30Z	10.8-13.2	15	200	3000	470	72
AM3F-1218SH30Z	10.8-13.2	18	167	3000	470	66
AM3F-1224SH30Z	10.8-13.2	24	125	3000	470	70
AM3F-2403SH30Z	21.6-26.4	3.3	800	3000	470	55
AM3F-2405SH30Z	21.6-26.4	5	600	3000	470	65
AM3F-2407SH30Z	21.6-26.4	7.2	417	3000	470	61
AM3F-2409SH30Z	21.6-26.4	9	333	3000	470	65
AM3F-2412SH30Z	21.6-26.4	12	250	3000	470	70

Models
Single output (Continue)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM3F-2415SH30Z	21.6-26.4	15	200	3000	470	70
AM3F-2418SH30Z	21.6-26.4	18	167	3000	470	66
AM3F-2424SH30Z	21.6-26.4	24	125	3000	470	72
AM3F-0503SH52Z	4.5-5.5	3.3	800	5200	470	53
AM3F-0505SH52Z	4.5-5.5	5	600	5200	470	67
AM3F-0507SH52Z	4.5-5.5	7.2	417	5200	470	64
AM3F-0509SH52Z	4.5-5.5	9	333	5200	470	67
AM3F-0512SH52Z	4.5-5.5	12	250	5200	470	72
AM3F-0515SH52Z	4.5-5.5	15	200	5200	470	72
AM3F-0518SH52Z	4.5-5.5	18	167	5200	470	65
AM3F-0524SH52Z	4.5-5.5	24	125	5200	470	70
AM3F-1203SH52Z	10.8-13.2	3.3	800	5200	470	55
AM3F-1205SH52Z	10.8-13.2	5	600	5200	470	67
AM3F-1207SH52Z	10.8-13.2	7.2	417	5200	470	64
AM3F-1209SH52Z	10.8-13.2	9	333	5200	470	67
AM3F-1212SH52Z	10.8-13.2	12	250	5200	470	72
AM3F-1215SH52Z	10.8-13.2	15	200	5200	470	72
AM3F-1218SH52Z	10.8-13.2	18	167	5200	470	66
AM3F-1224SH52Z	10.8-13.2	24	125	5200	470	70
AM3F-2403SH52Z	21.6-26.4	3.3	800	5200	470	55
AM3F-2405SH52Z	21.6-26.4	5	600	5200	470	65
AM3F-2407SH52Z	21.6-26.4	7.2	417	5200	470	61
AM3F-2409SH52Z	21.6-26.4	9	333	5200	470	65
AM3F-2412SH52Z	21.6-26.4	12	250	5200	470	70
AM3F-2415SH52Z	21.6-26.4	15	200	5200	470	70
AM3F-2418SH52Z	21.6-26.4	18	167	5200	470	66
AM3F-2424SH52Z	21.6-26.4	24	125	5200	470	72

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5 12 24	4.5-5.5 10.8-13.2 21.6-26.4		VDC
Filter	Capacitor			
Turn on Transient process time			100	ms
Start up time		300		ms
Absolute Maximum Rating	5 Vin 12 Vin 24 Vin	0-7 0-15 0-28		VDC
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000, 3000 and 5200	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Short Circuit protection	Continuous			
Short circuit restart	Auto-recovery			
Line voltage regulation (Single)		±0.5		%
Load voltage regulation (Single)	0 to 100% load	±0.5		%

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Load voltage regulation (Single) 3.3V output model	0 to 100% load	±1.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	75		mV p-p
Rising time		150		ms

General Specifications

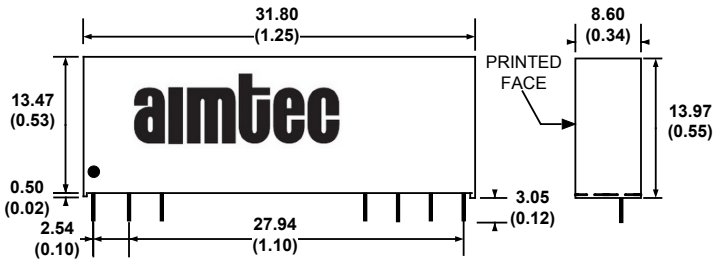
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	50		KHz
Operating temperature		-25 to +71		°C
Storage temperature		-40 to +125		°C
Max Case temperature			100	°C
Cooling		Free air convection		
Humidity			90	%
Case material		Non-conductive black plastic		
Weight		10.7		g
Dimensions (L x W x H)		1.25 x 0.34 x 0.53 inches	31.80 x 8.60 x 13.47 mm	
MTBF		>1,200,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified

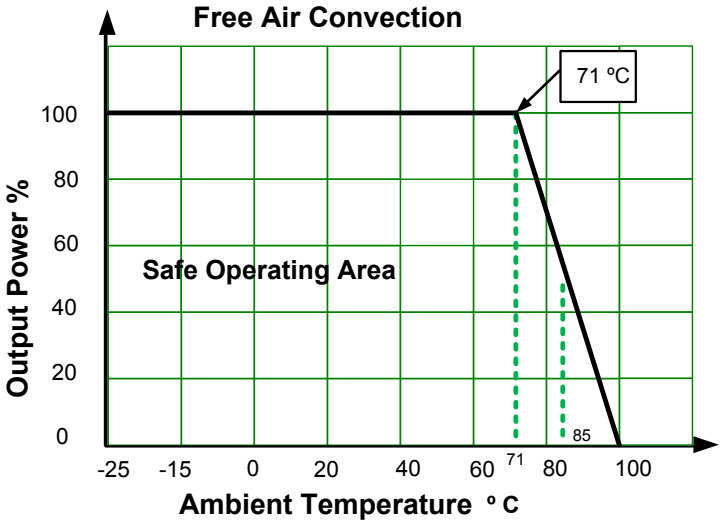
Pin Out Specifications

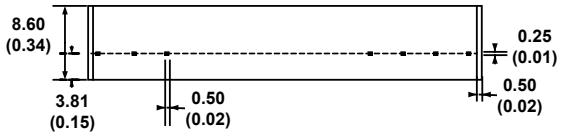
Pin	1000VDC	3000 & 5200VDC
1	+V Input	+V Input
2	N.C.	-V Input
3	N.C.	N.C.
9	N.C.	N.C.
10	-V Output	-V Output
11	+V output	+V output
12	-V Input	N.C.

Dimensions



Dimensions





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