



FEATURES:

- RoHS compliant
- High efficiency up to 80%
- Low profile plastic package
- 7 pin SIP package
- Operating temperature -40°C to + 85°C
- Short circuit protection
- Pin compatible with multiple manufacturers
- Input / Output Isolation 1000, 3000, 4000, 5200 & 6000 VDC

Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency
AM1D-0503SZ	4.5-5.5	3.3	300	1000	74
AM1D-0505SZ	4.5-5.5	5	200	1000	80
AM1D-0507SZ	4.5-5.5	7.2	140	1000	78
AM1D-0509SZ	4.5-5.5	9	110	1000	75
AM1D-0512SZ	4.5-5.5	12	83	1000	77
AM1D-0515SZ	4.5-5.5	15	70	1000	77
AM1D-0518SZ	4.5-5.5	18	55	1000	78
AM1D-0524SZ	4.5-5.5	24	40	1000	75
AM1D-1203SZ	10.8-13.2	3.3	300	1000	74
AM1D-1205SZ	10.8-13.2	5	200	1000	79
AM1D-1207SZ	10.8-13.2	7.2	140	1000	74
AM1D-1209SZ	10.8-13.2	9	110	1000	75
AM1D-1212SZ	10.8-13.2	12	83	1000	79
AM1D-1215SZ	10.8-13.2	15	70	1000	79
AM1D-1218SZ	10.8-13.2	18	55	1000	78
AM1D-1224SZ	10.8-13.2	24	40	1000	76
AM1D-2403SZ	21.6-26.4	3.3	300	1000	65
AM1D-2405SZ	21.6-26.4	5	200	1000	72
AM1D-2407SZ	21.6-26.4	7.2	140	1000	76
AM1D-2409SZ	21.6-26.4	9	110	1000	75
AM1D-2412SZ	21.6-26.4	12	83	1000	79
AM1D-2415SZ	21.6-26.4	15	70	1000	79
AM1D-2418SZ	21.6-26.4	18	55	1000	78
AM1D-2424SZ	21.6-26.4	24	40	1000	75
AM1D-0503SH30Z	4.5-5.5	3.3	300	3000	74
AM1D-0505SH30Z	4.5-5.5	5	200	3000	80
AM1D-0507SH30Z	4.5-5.5	7.2	140	3000	78
AM1D-0509SH30Z	4.5-5.5	9	110	3000	75
AM1D-0512SH30Z	4.5-5.5	12	83	3000	77
AM1D-0515SH30Z	4.5-5.5	15	70	3000	77
AM1D-0518SH30Z	4.5-5.5	18	55	3000	78
AM1D-0524SH30Z	4.5-5.5	24	40	3000	75
AM1D-1203SH30Z	10.8-13.2	3.3	300	3000	74
AM1D-1205SH30Z	10.8-13.2	5	200	3000	79
AM1D-1207SH30Z	10.8-13.2	7.2	140	3000	74
AM1D-1209SH30Z	10.8-13.2	9	110	3000	76
AM1D-1212SH30Z	10.8-13.2	12	83	3000	80
AM1D-1215SH30Z	10.8-13.2	15	70	3000	80
AM1D-1218SH30Z	10.8-13.2	18	55	3000	78
AM1D-1224SH30Z	10.8-13.2	24	40	3000	76
AM1D-2403SH30Z	21.6-26.4	3.3	300	3000	74
AM1D-2405SH30Z	21.6-26.4	5	200	3000	80
AM1D-2407SH30Z	21.6-26.4	7.2	140	3000	71
AM1D-2409SH30Z	21.6-26.4	9	110	3000	75

Models

Single output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1D-2412SH30Z	21.6-26.4	12	83	3000	78
AM1D-2415SH30Z	21.6-26.4	15	70	3000	78
AM1D-2418SH30Z	21.6-26.4	18	55	3000	78
AM1D-2424SH30Z	21.6-26.4	24	40	3000	75
AM1D-0503SH40Z	4.5-5.5	3.3	300	4000	74
AM1D-0505SH40Z	4.5-5.5	5	200	4000	80
AM1D-0507SH40Z	4.5-5.5	7.2	140	4000	78
AM1D-0509SH40Z	4.5-5.5	9	110	4000	75
AM1D-0512SH40Z	4.5-5.5	12	83	4000	77
AM1D-0515SH40Z	4.5-5.5	15	70	4000	77
AM1D-0518SH40Z	4.5-5.5	18	55	4000	78
AM1D-0524SH40Z	4.5-5.5	24	40	4000	75
AM1D-1203SH40Z	10.8-13.2	3.3	300	4000	74
AM1D-1205SH40Z	10.8-13.2	5	200	4000	79
AM1D-1207SH40Z	10.8-13.2	7.2	140	4000	74
AM1D-1209SH40Z	10.8-13.2	9	110	4000	75
AM1D-1212SH40Z	10.8-13.2	12	83	4000	79
AM1D-1215SH40Z	10.8-13.2	15	70	4000	79
AM1D-1218SH40Z	10.8-13.2	18	55	4000	78
AM1D-1224SH40Z	10.8-13.2	24	40	4000	76
AM1D-2403SH40Z	21.6-26.4	3.3	300	4000	65
AM1D-2405SH40Z	21.6-26.4	5	200	4000	72
AM1D-2407SH40Z	21.6-26.4	7.2	140	4000	76
AM1D-2409SH40Z	21.6-26.4	9	110	4000	75
AM1D-2412SH40Z	21.6-26.4	12	83	4000	79
AM1D-2415SH40Z	21.6-26.4	15	70	4000	79
AM1D-2418SH40Z	21.6-26.4	18	55	4000	78
AM1D-2424SH40Z	21.6-26.4	24	40	4000	75
AM1D-0503SH52Z	4.5-5.5	3.3	300	5200	74
AM1D-0505SH52Z	4.5-5.5	5	200	5200	80
AM1D-0507SH52Z	4.5-5.5	7.2	140	5200	78
AM1D-0509SH52Z	4.5-5.5	9	110	5200	75
AM1D-0512SH52Z	4.5-5.5	12	83	5200	77
AM1D-0515SH52Z	4.5-5.5	15	70	5200	77
AM1D-0518SH52Z	4.5-5.5	18	55	5200	78
AM1D-0524SH52Z	4.5-5.5	24	40	5200	75
AM1D-1203SH52Z	10.8-13.2	3.3	300	5200	74
AM1D-1205SH52Z	10.8-13.2	5	200	5200	79
AM1D-1207SH52Z	10.8-13.2	7.2	140	5200	74
AM1D-1209SH52Z	10.8-13.2	9	110	5200	76
AM1D-1212SH52Z	10.8-13.2	12	83	5200	80
AM1D-1215SH52Z	10.8-13.2	15	70	5200	80
AM1D-1218SH52Z	10.8-13.2	18	55	5200	78
AM1D-1224SH52Z	10.8-13.2	24	40	5200	76
AM1D-2403SH52Z	21.6-26.4	3.3	300	5200	74
AM1D-2405SH52Z	21.6-26.4	5	200	5200	80
AM1D-2407SH52Z	21.6-26.4	7.2	140	5200	71
AM1D-2409SH52Z	21.6-26.4	9	110	5200	75
AM1D-2412SH52Z	21.6-26.4	12	83	5200	78
AM1D-2415SH52Z	21.6-26.4	15	70	5200	78
AM1D-2418SH52Z	21.6-26.4	18	55	5200	78
AM1D-2424SH52Z	21.6-26.4	24	40	5200	75

Models

Single output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1D-0503SH60Z	4.5-5.5	3.3	300	6000	74
AM1D-0505SH60Z	4.5-5.5	5	200	6000	80
AM1D-0507SH60Z	4.5-5.5	7.2	140	6000	78
AM1D-0509SH60Z	4.5-5.5	9	110	6000	75
AM1D-0512SH60Z	4.5-5.5	12	83	6000	77
AM1D-0515SH60Z	4.5-5.5	15	70	6000	77
AM1D-0518SH60Z	4.5-5.5	18	55	6000	78
AM1D-0524SH60Z	4.5-5.5	24	40	6000	75
AM1D-1203SH60Z	10.8-13.2	3.3	300	6000	74
AM1D-1205SH60Z	10.8-13.2	5	200	6000	79
AM1D-1207SH60Z	10.8-13.2	7.2	140	6000	74
AM1D-1209SH60Z	10.8-13.2	9	110	6000	76
AM1D-1212SH60Z	10.8-13.2	12	83	6000	80
AM1D-1215SH60Z	10.8-13.2	15	70	6000	80
AM1D-1218SH60Z	10.8-13.2	18	55	6000	78
AM1D-1224SH60Z	10.8-13.2	24	40	6000	76
AM1D-2403SH60Z	21.6-26.4	3.3	300	6000	74
AM1D-2405SH60Z	21.6-26.4	5	200	6000	80
AM1D-2407SH60Z	21.6-26.4	7.2	140	6000	71
AM1D-2409SH60Z	21.6-26.4	9	110	6000	75
AM1D-2412SH60Z	21.6-26.4	12	83	6000	78
AM1D-2415SH60Z	21.6-26.4	15	70	6000	78
AM1D-2418SH60Z	21.6-26.4	18	55	6000	78
AM1D-2424SH60Z	21.6-26.4	24	40	6000	75

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1D-0503DZ	4.5-5.5	±3.3	±150	1000	72
AM1D-0505DZ	4.5-5.5	±5	±100	1000	75
AM1D-0507DZ	4.5-5.5	±7.2	±70	1000	76
AM1D-0509DZ	4.5-5.5	±9	±55	1000	80
AM1D-0512DZ	4.5-5.5	±12	±42	1000	80
AM1D-0515DZ	4.5-5.5	±15	±35	1000	79
AM1D-0518DZ	4.5-5.5	±18	±27	1000	76
AM1D-0524DZ	4.5-5.5	±24	±20	1000	65
AM1D-1203DZ	10.8-13.2	±3.3	±150	1000	72
AM1D-1205DZ	10.8-13.2	±5	±100	1000	76
AM1D-1207DZ	10.8-13.2	±7.2	±70	1000	75
AM1D-1209DZ	10.8-13.2	±9	±55	1000	79
AM1D-1212DZ	10.8-13.2	±12	±42	1000	79
AM1D-1215DZ	10.8-13.2	±15	±35	1000	78
AM1D-1218DZ	10.8-13.2	±18	±27	1000	75
AM1D-1224DZ	10.8-13.2	±24	±20	1000	68
AM1D-2403DZ	21.6-26.4	±3.3	±150	1000	72
AM1D-2405DZ	21.6-26.4	±5	±100	1000	76
AM1D-2407DZ	21.6-26.4	±7.2	±70	1000	74
AM1D-2409DZ	21.6-26.4	±9	±55	1000	78
AM1D-2412DZ	21.6-26.4	±12	±42	1000	78
AM1D-2415DZ	21.6-26.4	±15	±35	1000	77
AM1D-2418DZ	21.6-26.4	±18	±27	1000	74
AM1D-2424DZ	21.6-26.4	±24	±20	1000	65

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1D-0503DH30Z	4.5-5.5	±3.3	±150	3000	72
AM1D-0505DH30Z	4.5-5.5	±5	±100	3000	75
AM1D-0507DH30Z	4.5-5.5	±7.2	±70	3000	76
AM1D-0509DH30Z	4.5-5.5	±9	±55	3000	80
AM1D-0512DH30Z	4.5-5.5	±12	±42	3000	80
AM1D-0515DH30Z	4.5-5.5	±15	±35	3000	79
AM1D-0518DH30Z	4.5-5.5	±18	±27	3000	76
AM1D-0524DH30Z	4.5-5.5	±24	±20	3000	65
AM1D-1203DH30Z	10.8-13.2	±3.3	±150	3000	72
AM1D-1205DH30Z	10.8-13.2	±5	±100	3000	76
AM1D-1207DH30Z	10.8-13.2	±7.2	±70	3000	75
AM1D-1209DH30Z	10.8-13.2	±9	±55	3000	79
AM1D-1212DH30Z	10.8-13.2	±12	±42	3000	72
AM1D-1215DH30Z	10.8-13.2	±15	±35	3000	75
AM1D-1218DH30Z	10.8-13.2	±18	±27	3000	76
AM1D-1224DH30Z	10.8-13.2	±24	±20	3000	80
AM1D-2403DH30Z	21.6-26.4	±3.3	±150	3000	80
AM1D-2405DH30Z	21.6-26.4	±5	±100	3000	79
AM1D-2407DH30Z	21.6-26.4	±7.2	±70	3000	76
AM1D-2409DH30Z	21.6-26.4	±9	±55	3000	65
AM1D-2412DH30Z	21.6-26.4	±12	±42	3000	72
AM1D-2415DH30Z	21.6-26.4	±15	±35	3000	76
AM1D-2418DH30Z	21.6-26.4	±18	±27	3000	75
AM1D-2424DH30Z	21.6-26.4	±24	±20	3000	79
AM1D-0503DH40Z	4.5-5.5	±3.3	±150	4000	79
AM1D-0505DH40Z	4.5-5.5	±5	±100	4000	78
AM1D-0507DH40Z	4.5-5.5	±7.2	±70	4000	75
AM1D-0509DH40Z	4.5-5.5	±9	±55	4000	68
AM1D-0512DH40Z	4.5-5.5	±12	±42	4000	72
AM1D-0515DH40Z	4.5-5.5	±15	±35	4000	76
AM1D-0518DH40Z	4.5-5.5	±18	±27	4000	74
AM1D-0524DH40Z	4.5-5.5	±24	±20	4000	78
AM1D-1203DH40Z	10.8-13.2	±3.3	±150	4000	78
AM1D-1205DH40Z	10.8-13.2	±5	±100	4000	77
AM1D-1207DH40Z	10.8-13.2	±7.2	±70	4000	74
AM1D-1209DH40Z	10.8-13.2	±9	±55	4000	65
AM1D-1212DH40Z	10.8-13.2	±12	±42	4000	72
AM1D-1215DH40Z	10.8-13.2	±15	±35	4000	75
AM1D-1218DH40Z	10.8-13.2	±18	±27	4000	76
AM1D-1224DH40Z	10.8-13.2	±24	±20	4000	80
AM1D-2403DH40Z	21.6-26.4	±3.3	±150	4000	80
AM1D-2405DH40Z	21.6-26.4	±5	±100	4000	79
AM1D-2407DH40Z	21.6-26.4	±7.2	±70	4000	76
AM1D-2409DH40Z	21.6-26.4	±9	±55	4000	65
AM1D-2412DH40Z	21.6-26.4	±12	±42	4000	72
AM1D-2415DH40Z	21.6-26.4	±15	±35	4000	76
AM1D-2418DH40Z	21.6-26.4	±18	±27	4000	75
AM1D-2424DH40Z	21.6-26.4	±24	±20	4000	79

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM1D-0503DH52Z	4.5-5.5	±3.3	±150	5200	65
AM1D-0505DH52Z	4.5-5.5	±5	±100	5200	72
AM1D-0507DH52Z	4.5-5.5	±7.2	±70	5200	68
AM1D-0509DH52Z	4.5-5.5	±9	±55	5200	76
AM1D-0512DH52Z	4.5-5.5	±12	±42	5200	80
AM1D-0515DH52Z	4.5-5.5	±15	±35	5200	80
AM1D-0518DH52Z	4.5-5.5	±18	±27	5200	68
AM1D-0524DH52Z	4.5-5.5	±24	±20	5200	76
AM1D-1203DH52Z	10.8-13.2	±3.3	±150	5200	65
AM1D-1205DH52Z	10.8-13.2	±5	±100	5200	72
AM1D-1207DH52Z	10.8-13.2	±7.2	±70	5200	75
AM1D-1209DH52Z	10.8-13.2	±9	±55	5200	75
AM1D-1212DH52Z	10.8-13.2	±12	±42	5200	79
AM1D-1215DH52Z	10.8-13.2	±15	±35	5200	79
AM1D-1218DH52Z	10.8-13.2	±18	±27	5200	75
AM1D-1224DH52Z	10.8-13.2	±24	±20	5200	75
AM1D-2403DH52Z	21.6-26.4	±3.3	±150	5200	65
AM1D-2405DH52Z	21.6-26.4	±5	±100	5200	72
AM1D-2407DH52Z	21.6-26.4	±7.2	±70	5200	75
AM1D-2409DH52Z	21.6-26.4	±9	±55	5200	74
AM1D-2412DH52Z	21.6-26.4	±12	±42	5200	78
AM1D-2415DH52Z	21.6-26.4	±15	±35	5200	78
AM1D-2418DH52Z	21.6-26.4	±18	±27	5200	75
AM1D-2424DH52Z	21.6-26.4	±24	±20	5200	74
AM1D-0503DH60Z	4.5-5.5	±3.3	±150	6000	65
AM1D-0505DH60Z	4.5-5.5	±5	±100	6000	72
AM1D-0507DH60Z	4.5-5.5	±7.2	±70	6000	68
AM1D-0509DH60Z	4.5-5.5	±9	±55	6000	76
AM1D-0512DH60Z	4.5-5.5	±12	±42	6000	80
AM1D-0515DH60Z	4.5-5.5	±15	±35	6000	80
AM1D-0518DH60Z	4.5-5.5	±18	±27	6000	68
AM1D-0524DH60Z	4.5-5.5	±24	±20	6000	76
AM1D-1203DH60Z	10.8-13.2	±3.3	±150	6000	65
AM1D-1205DH60Z	10.8-13.2	±5	±100	6000	72
AM1D-1207DH60Z	10.8-13.2	±7.2	±70	6000	75
AM1D-1209DH60Z	10.8-13.2	±9	±55	6000	75
AM1D-1212DH60Z	10.8-13.2	±12	±42	6000	79
AM1D-1215DH60Z	10.8-13.2	±15	±35	6000	79
AM1D-1218DH60Z	10.8-13.2	±18	±27	6000	75
AM1D-1224DH60Z	10.8-13.2	±24	±20	6000	75
AM1D-2403DH60Z	21.6-26.4	±3.3	±150	6000	65
AM1D-2405DH60Z	21.6-26.4	±5	±100	6000	72
AM1D-2407DH60Z	21.6-26.4	±7.2	±70	6000	75
AM1D-2409DH60Z	21.6-26.4	±9	±55	6000	74
AM1D-2412DH60Z	21.6-26.4	±12	±42	6000	78
AM1D-2415DH60Z	21.6-26.4	±15	±35	6000	78
AM1D-2418DH60Z	21.6-26.4	±18	±27	6000	75
AM1D-2424DH60Z	21.6-26.4	±24	±20	6000	74

Models

Dual separate output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (VDC)	Isolation (VDC)	Efficiency (%)
AM1D-050303DZ	4.5-5.5	3.3/3.3	150/150	1000	75
AM1D-050505DZ	4.5-5.5	5/5	100/100	1000	72
AM1D-050707DZ	4.5-5.5	7.2/7.2	70/70	1000	73
AM1D-050909DZ	4.5-5.5	9/9	55/55	1000	75
AM1D-051212DZ	4.5-5.5	12/12	42/42	1000	80
AM1D-051515DZ	4.5-5.5	15/15	35 /35	1000	78
AM1D-051818DZ	4.5-5.5	18/18	27/27	1000	77
AM1D-052424DZ	4.5-5.5	24/24	20/20	1000	77
AM1D-120303DZ	10.8-13.2	3.3/3.3	150/150	1000	66
AM1D-120505DZ	10.8-13.2	5/5	100/100	1000	72
AM1D-120707DZ	10.8-13.2	7.2/7.2	70/70	1000	66
AM1D-120909DZ	10.8-13.2	9/9	55/55	1000	75
AM1D-121212DZ	10.8-13.2	12/12	42/42	1000	78
AM1D-121515DZ	10.8-13.2	15/15	35 /35	1000	80
AM1D-121818DZ	10.8-13.2	18/18	27/27	1000	75
AM1D-122424DZ	10.8-13.2	24/24	20/20	1000	72
AM1D-240303DZ	21.6-26.4	3.3/3.3	150/150	1000	66
AM1D-240505DZ	21.6-26.4	5/5	100/100	1000	72
AM1D-240707DZ	21.6-26.4	7.2/7.2	70/70	1000	72
AM1D-240909DZ	21.6-26.4	9/9	55/55	1000	78
AM1D-241212DZ	21.6-26.4	12/12	42/42	1000	80
AM1D-241515DZ	21.6-26.4	15/15	35 /35	1000	77
AM1D-241818DZ	21.6-26.4	18/18	27/27	1000	75
AM1D-242424DZ	21.6-26.4	24/24	20/20	1000	73

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage range		5, (4.5-5.5) 12, (10.8-13.2) 24, (21.6-26.4)		VDC
Filter	Capacitor			
Turn on Transient process time			25	ms
Start up time		200		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	Maximum	Units
Rated voltage	60 sec	1000 (all models), 3000, 4000, 5200 & 6000 (single / dual)		VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy			±3	%
Voltage balance	Dual Output	±1		%
Short Circuit protection	Momentary			
Line voltage regulation (Single)	For 1.0% of Vin	±1.2		%
Line voltage regulation (Dual)	For 1.0% of Vin	±1.2		%
Load voltage regulation (Single)	load 20~100%	8		%

Load voltage regulation (Dual)	load 20~100%	8		%
Temperature coefficient			±0.02	%/°C
Ripple & Noise	At 20MHz Bandwidth		75	mV p-p
Rising time		50		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	125		KHz
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-55 to +125		°C
Case temperature			+95	°C
Cooling	Free air convection			
Humidity	Non condensing		90	%
Case material	Non-conductive black plastic			
Weight		2		g
Dimensions		0.76 x 0.24 x 0.39 inch	19.5 x 6.00 x 10.00 mm	
MTBF	>2 000 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

Safety Specifications

Standards

Agency approvals	CE (except dual separated models)
Safety	EN55022 (Conducted and Radiated Emissions) class B, EN55024 (Noise Immunity), IEC61000-4-2(ESD), IEC61000-4-3(Radiated immunity)

Pin Out Specifications

Pin	Single 1000 VDC	Dual 1000 VDC	Dual Separated 1000 VDC	Single 3000, 4000, 5200 & 6000 VDC	Dual 3000, 4000, 5200 & 6000 VDC
1	+ V Input	+ V Input	+V Input	+ V Input	+ V Input
2	- V Input	- V Input	-V Input	- V Input	- V Input
4	- V Output	- V Output	+V1 Output	No pin	No pin
5	No pin	Common	-V1 Output	- V Output	- V Output
6	+ V Output	+ V Output	+V2 Output	No pin	Common
7	No pin	No pin	-V2 Output	+ V Output	+ V Output

Dimensions

