



### FEATURES:

- RoHS compliant
- Full SMD technology
- Wide 2:1 input range
- High efficiency up to 86%
- Pin compatible with multiple manufacturers
- Operating temperature -40°C to + 85°C
- Input/Output Isolation 1500VDC
- Continuous short circuit protection
- Low profile metal package

### Models Single output

| Model        | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (μF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-1203SZ | 9-18              | 3.3                | 2                      | 6800                       | 78             |
| AM10E-1205SZ | 9-18              | 5                  | 2                      | 6800                       | 83             |
| AM10E-1207SZ | 9-18              | 7.2                | 1.38                   | 1000                       | 82             |
| AM10E-1209SZ | 9-18              | 9                  | 1.111                  | 1000                       | 84             |
| AM10E-1212SZ | 9-18              | 12                 | 0.833                  | 1000                       | 85             |
| AM10E-1215SZ | 9-18              | 15                 | 0.666                  | 1000                       | 84             |
| AM10E-1218SZ | 9-18              | 18                 | 0.55                   | 470                        | 84             |
| AM10E-1224SZ | 9-18              | 24                 | 0.416                  | 470                        | 85             |
| AM10E-2403SZ | 18-36             | 3.3                | 2                      | 6800                       | 78             |
| AM10E-2405SZ | 18-36             | 5                  | 2                      | 6800                       | 83             |
| AM10E-2407SZ | 18-36             | 7.2                | 1.38                   | 1000                       | 83             |
| AM10E-2409SZ | 18-36             | 9                  | 1.111                  | 1000                       | 83             |
| AM10E-2412SZ | 18-36             | 12                 | 0.833                  | 1000                       | 85             |
| AM10E-2415SZ | 18-36             | 15                 | 0.666                  | 1000                       | 86             |
| AM10E-2418SZ | 18-36             | 18                 | 0.55                   | 470                        | 86             |
| AM10E-2424SZ | 18-36             | 24                 | 0.416                  | 470                        | 86             |
| AM10E-4803SZ | 36-72             | 3.3                | 2                      | 6800                       | 78             |
| AM10E-4805SZ | 36-72             | 5                  | 2                      | 6800                       | 84             |
| AM10E-4807SZ | 36-72             | 7.2                | 1.38                   | 1000                       | 84             |
| AM10E-4809SZ | 36-72             | 9                  | 1.111                  | 1000                       | 84             |
| AM10E-4812SZ | 36-72             | 12                 | 0.833                  | 1000                       | 86             |
| AM10E-4815SZ | 36-72             | 15                 | 0.666                  | 1000                       | 85             |
| AM10E-4818SZ | 36-72             | 18                 | 0.55                   | 470                        | 85             |
| AM10E-4824SZ | 36-72             | 24                 | 0.416                  | 470                        | 85             |

### Models Dual output

| Model        | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (μF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-1203DZ | 9-18              | ±3.3               | ±1                     | ±3300                      | 78             |
| AM10E-1205DZ | 9-18              | ±5                 | ±1                     | ±3300                      | 83             |
| AM10E-1207DZ | 9-18              | ±7.2               | ±0.69                  | ±680                       | 80             |
| AM10E-1209DZ | 9-18              | ±9                 | ±0.555                 | ±680                       | 80             |
| AM10E-1212DZ | 9-18              | ±12                | ±0.416                 | ±680                       | 85             |
| AM10E-1215DZ | 9-18              | ±15                | ±0.333                 | ±330                       | 85             |
| AM10E-1218DZ | 9-18              | ±18                | ±0.27                  | ±220                       | 80             |
| AM10E-1224DZ | 9-18              | ±24                | ±0.208                 | ±220                       | 85             |
| AM10E-2403DZ | 18-36             | ±3.3               | ±1                     | ±3300                      | 78             |
| AM10E-2405DZ | 18-36             | ±5                 | ±1                     | ±3300                      | 84             |

### Models

#### Dual output (continued)

| Model        | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (μF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-2407DZ | 18-36             | ±7.2               | ±0.69                  | ±680                       | 80             |
| AM10E-2409DZ | 18-36             | ±9                 | ±0.555                 | ±680                       | 80             |
| AM10E-2412DZ | 18-36             | ±12                | ±0.416                 | ±680                       | 85             |
| AM10E-2415DZ | 18-36             | ±15                | ±0.333                 | ±330                       | 86             |
| AM10E-2418DZ | 18-36             | ±18                | ±0.27                  | ±220                       | 80             |
| AM10E-2424DZ | 18-36             | ±24                | ±0.208                 | ±220                       | 85             |
| AM10E-4803DZ | 36-72             | ±3.3               | ±1                     | ±3300                      | 78             |
| AM10E-4805DZ | 36-72             | ±5                 | ±1                     | ±3300                      | 85             |
| AM10E-4807DZ | 36-72             | ±7.2               | ±0.69                  | ±680                       | 80             |
| AM10E-4809DZ | 36-72             | ±9                 | ±0.555                 | ±680                       | 80             |
| AM10E-4812DZ | 36-72             | ±12                | ±0.416                 | ±680                       | 86             |
| AM10E-4815DZ | 36-72             | ±15                | ±0.333                 | ±330                       | 86             |
| AM10E-4818DZ | 36-72             | ±18                | ±0.27                  | ±220                       | 80             |
| AM10E-4824DZ | 36-72             | ±24                | ±0.208                 | ±220                       | 85             |

### Input Specifications

| Parameters    | Conditions | Typical   | Maximum | Units |
|---------------|------------|-----------|---------|-------|
| Voltage range | 12         | 9-18      |         | VDC   |
|               | 24         | 18-36     |         |       |
|               | 48         | 36-72     |         |       |
| Filter        |            | Capacitor |         |       |

### Isolation Specifications

| Parameters    | Conditions | Typical | Maximum | Units |
|---------------|------------|---------|---------|-------|
| Rated voltage | 60 sec     | 1500    |         | VDC   |
| Resistance    |            | > 1000  |         | MOhm  |
| Capacitance   |            | 500     |         | pF    |

### Output Specifications

| Parameters                       | Conditions         | Typical | Maximum | Units |
|----------------------------------|--------------------|---------|---------|-------|
| Voltage accuracy                 |                    |         | ±1      | %     |
| Voltage balance                  | Dual output        | ±1      |         | %     |
| Short Circuit protection         | Continuous         |         |         |       |
| Short circuit restart            | Automatic          |         |         |       |
| Over load protection             |                    | 130     |         | %     |
| Line voltage regulation (Single) | HL-LL              |         | ±0.5    | %     |
| Line voltage regulation (Dual)   | HL-LL              |         | ±0.5    | %     |
| Load voltage regulation (Single) | 10-100%            |         | ±0.5    | %     |
| Load voltage regulation (Dual)   | 10-100%            |         | ±0.5    | %     |
| Temperature coefficient          |                    | ±0.02   |         | % °C  |
| Ripple & Noise                   | At 20MHz Bandwidth | 100     |         | mVp-p |

### General Specifications

| Parameters            | Conditions     | Typical              | Maximum | Units |
|-----------------------|----------------|----------------------|---------|-------|
| Switching frequency   | 100% load      | 200                  |         | KHz   |
| Operating temperature |                | -40 to +85           |         | °C    |
| Storage temperature   |                | -55 to +125          |         | °C    |
| Case temperature      |                |                      | 100     | °C    |
| Derating              |                | Non-Required         |         |       |
| Cooling               |                | Free air convection  |         |       |
| Humidity              | Non condensing |                      | 95      | %     |
| Case material         |                | Nickel coated copper |         |       |

### General Specifications (continued)

| Parameters | Conditions                                                                    | Typical                  | Maximum                | Units |
|------------|-------------------------------------------------------------------------------|--------------------------|------------------------|-------|
| Weight     |                                                                               | 30                       |                        | g     |
| Dimensions | Tolerance $\pm 0.5\text{mm}$                                                  | 2.00 x 1.00 x 0.4 inches | 50.8 x 25.4 x 10.16 mm |       |
| MTBF       | $> 1\,121\,000$ hrs (MIL-HDBK -217F, Ground Benign, $t=+25^{\circ}\text{C}$ ) |                          |                        |       |

### Safety Specifications

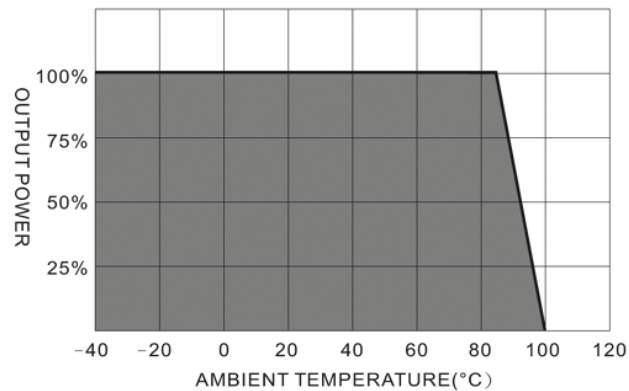
#### Standards

|                  |                                                                                      |
|------------------|--------------------------------------------------------------------------------------|
| Safety           | IEC60950-1:2001; EN 55022 – Class A; EN 55024 – Class A; IEC61000-4-2 ; IEC61000-4-3 |
| Agency approvals | CE                                                                                   |

### Pin Out Specifications

| Pin | Single    | Dual      |
|-----|-----------|-----------|
| 1   | +V Input  | +V Input  |
| 2   | -V Input  | -V Input  |
| 3   | +V Output | +V Output |
| 4   | No Pin.   | Common.   |
| 5   | -V Output | -V Output |

### Temperature Derating Graph



### Dimensions (Bottom view)

