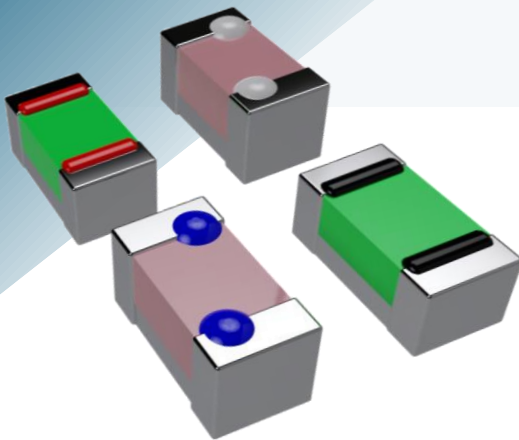


50 VDC SM1206 High-Reliability Solid Body Fuses



FEATURES

- Solid body construction with a thick film gold fusing element
- Tightly controlled blowing times over a wide range of operating conditions (including vacuum operation)
- Low DC resistance (low power dissipation)
- Termination finish is Sn/Pb solder
- Operating temperature range: -55 °C to +125 °C

APPLICATIONS

- Satellite / Spacecraft
- Aerospace
- Avionics
- Military

Electrical Characteristics

Fuse Part Number / Ratings			DC Resistance (Ohms) / 1		Overload Interrupt Time (Seconds) / 2 / 3 / 4			Maximum I ² T (A2 Sec)		
Part Number	Maximum Voltage (VDC)	Current Rating (Amps)	Minimum	Maximum	250% Nominal Rating	400% Nominal Rating	600% Nominal Rating	250% Nominal Rating	400% Nominal Rating	600% Nominal Rating
SM1206-50-1/4	50	0.250	1.500	2.500	.005-60.0	.0005-.015	.00005-.003	23.4	0.0150	0.00675
SM1206-50-3/8	50	0.375	1.125	1.875	.005-60.0	.0005-.015	.00005-.003	52.7	0.0340	0.0152
SM1206-50-1/2	50	0.500	0.450	0.750	.005-10.0	.0005-.015	.00005-.003	15.6	0.0600	0.0270
SM1206-50-3/4	50	0.750	0.198	0.331	.005-10.0	.0005-.015	.00005-.003	35.2	0.135	0.0607
SM1206-50-1.0	50	1.000	0.120	0.190	.005-5.0	.0005-.010	.0001-.003	31.3	0.160	0.108
SM1206-50-1.5	50	1.500	0.0825	0.1375	.005-3.0	.0005-.010	.0001-.003	42.2	0.360	0.243
SM1206-50-2.0	50	2.000	0.0410	0.0680	.005-3.0	.0005-.010	.0001-.003	75.0	0.640	0.432
SM1206-50-3.0	50	3.000	0.0240	0.0400	.005-1.0	.0005-.010	.0001-.003	56.3	1.44	0.972
SM1206-50-4.0	50	4.000	0.0184	0.0276	.005-1.0	.0005-.010	.0001-.003	100	2.56	1.73
SM1206-50-5.0	50	5.000	0.0120	0.0200	.005-1.0	.0005-.010	.0001-.003	156	4.00	2.70

Notes:

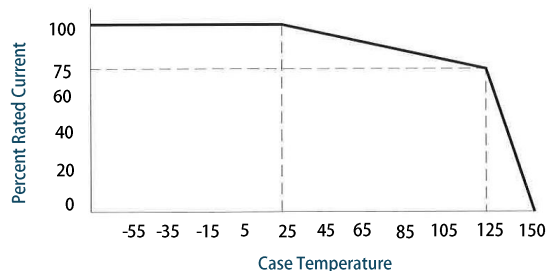
1/ DC resistance is measured using a constant current DC source having an open circuit voltage not greater than the fuse rated voltage and a measurement current from 0.1 to 10 mA, or calculated from voltage drop obtained with 10% rated current applied and an open circuit voltage not greater than the fuse rated voltage

2/ Overload interrupt clearing times are at +25 °C. Clearing times at 250% overloads and -55 °C may be longer than those noted.

3/ 200% and 1000% overload interrupt times are also supplied with Group A data.

4/ The short circuit interrupt rating: 50 amperes for 1/4-to-3.0-amp ratings at rated voltage, 35 amperes for 4.0-to-5.0-amp ratings at rated voltage.

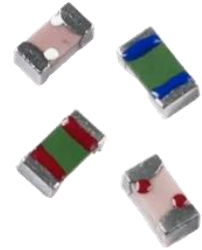
Derating Curve



AEM, INC.'s SM1206 High-Reliability Solid Body Fuses

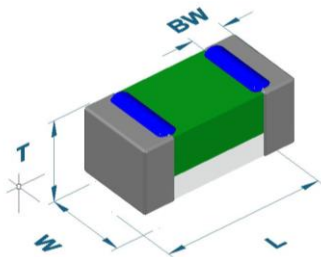
Fuse Arc Suppressant And Marking Color Identification

Aem Part Number	Arc Suppressant Glass Color	Marking Designation Bars/Dots	Marking Ink Color
SM1206-50-1/4	Green	2 Bars	White
SM1206-50-3/8	Green	2 Bars	Red
SM1206-50-1/2	Green	2 Bars	Blue
SM1206-50-3/4	Green	2 Bars	Black
SM1206-50-1.0	Pink	2 Dots	White
SM1206-50-1.5	Pink	2 Dots	Blue
SM1206-50-2.0	Pink	2 Dots	Green
SM1206-50-3.0	Pink	2 Dots	Brown
SM1206-50-4.0	Pink	2 Dots	Yellow
SM1206-50-5.0	Pink	None	None



Product Dimensions

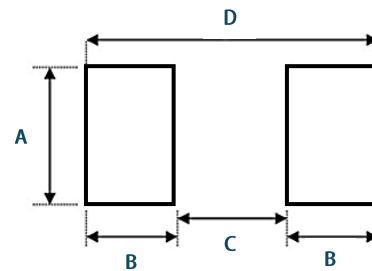
Inches
(mm)



L	W	T	BW
0.126 ± 0.008 (3.20 ± 0.20)	0.060 ± 0.008 (1.52 ± 0.20)	0.062 Max. (1.57 Max.)	0.025 ± 0.010 Typ. (0.64 ± 0.25 Typ.)

Recommended Pad Layout

Inches
(mm)



A	B	C	D
0.068	0.065	0.045	0.175

Screening

Group A/B data supplied with each shipment . Group C is optional.

Group A

Examination or Test	Number of Units Specified
Thermal shock	100 percent
DC resistance	100 percent
Overload current characterization	As required (20 pcs. Minimum)
Radiograph inspection (X-Ray)	100 percent
Visual and mechanical inspection	100 percent

Group B

Examination or test	Number of Units specified	Number of defectives allowed
Subgroup I (20 Units)		
Overload interrupt (+25°C)	20	0
Resistance after firing	20	0
Subgroup II (8 units)		
Solderability	8	0
Subgroup III (4 units)		
Resistance to soldering heat	4	0
Subgroup IV (4 units)		
Termination strength	4	0
Subgroup V (8 units)		
Current carrying capacity (+25 °C)	8	0
Subgroup VI (22 units)		
Thermal shock	22	0
168-Hour burn-in	22	0

