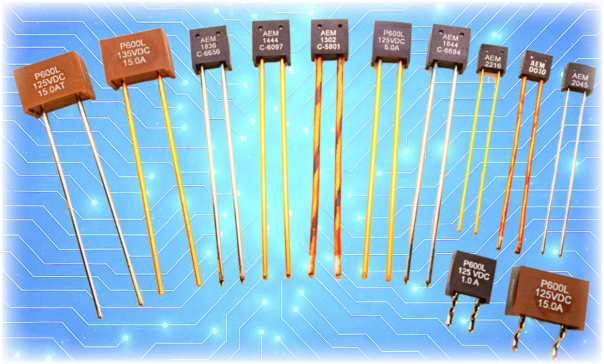
AEM Innovation to Power Your Vision

AEM HI-REL



P600L High-Reliability Solid Body Fuses

AEM, Inc. is the sole U.S. manufacturer of solid body current limiting fuses produced utilizing thick film technology with subsequent screening and qualification for spacecraft/ satellite applications. AEM, Inc.'s P600L Series Fuses have been selected by most major space programs and have been in orbit for the past 40 years with *zero failures*.

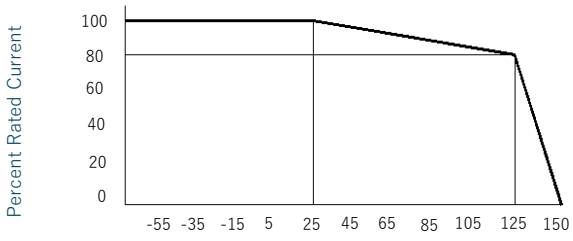
Features

- Solid body construction with hermetically sealed gold fusing elements
- Consistent clearing times achieved at overload currents regardless of vacuum conditions
- Solid body construction without outgassing and not subjected to the de-rating factors of MIL-STD-975
- Solid body construction capable of withstanding greater vibration and shock exposure without damage
- Positive temperature coefficient of fuse element causing resistance to increase (prior to opening) thereby preventing absolute short to the power source
- Internal construction ensuring that arc, plasma, and vapor are contained within the fuse package during overload current conditions
- Groups A/B data supplied with each shipment and Group C inspection optional
- High-reliability fuse series with over 39 million hours of life testing without a failure
- Available as QPL Certified per MIL-PRF-23419/12

Applications

- Satellite/Spacecraft
- Aerospace
- Avionics
- Military

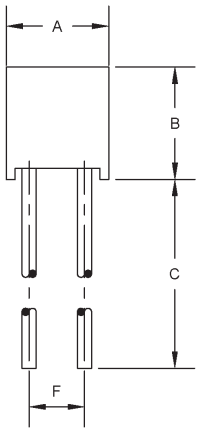
Derating Curve

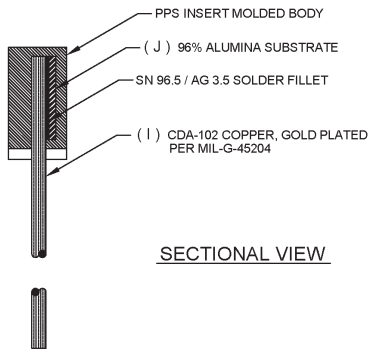


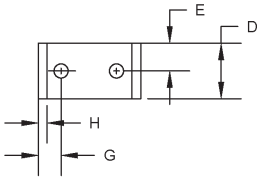
Case Temperture (DEGREES°C)

Product Dimensions (Inches)

Dimension	Figure 1*	Figure 2*	Figure 3*	Figure 4*
A	.280 max.	.380 max.	.380 max.	.625 max.
B	.270 max.	.410 max.	.410 max.	.440 max.
C	1.50 min.	2.00 min.	2.00 min.	2.00 min.
D	.145 max.	.210 max.	.210 max.	.325 max
E	.070 typ.	.100 typ.	.100 typ.	.152 typ.
F	.160 ± .010	.200 ± .010	.200 ± .010	.350 ± .010
G	.055 typ.	.085 typ.	.087 typ.	.125 typ.
H	.025 typ.	.032 typ.	.032 typ.	.032 typ.
I	.026 ± .001 Dia.	.051 ± .001 Dia.	.064 ± .001 Dia.	.051 ± .001 Dia.
J	.020 typ.	.025 typ.	.025 typ.	.040 typ.







*** See table on Page 2***

ANAB ACCREDITED Certified to AS9100D ISO 9001:2015 TÜVRheinland

MIL-STD-790

P600L High-Reliability Solid Body Fuses

Electrical Characteristics

Fuse Part Numbers / Ratings			DC Resistance (Ohms) /1		Figure	Overload Interrupt Time (Seconds) /2			Maximum I^2T (Ampere^{2}Seconds)/3		
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
P600L-72-1/8	72 / 80	1/8	6.375	10.625	1	0.005-30.0	0.0005-0.015	0.000075-0.003	2.93	0.004	0.002
P600L-72-1/4	72 / 80	1/4	1.875	3.125	1	0.005-30.0	0.0005-0.015	0.000075-0.003	11.7	0.015	0.007
P600L-72-3/8	72 / 80	3/8	1.125	1.875	1	0.01-0.300	0.001-0.015	0.00015-0.003	0.264	0.034	0.015
P600L-72-1/2	72 / 80	1/2	0.675	1.125	1	0.01-0.300	0.001-0.015	0.00015-0.003	0.469	0.060	0.027
P600L-72-3/4	72 / 80	3/4	0.225	0.375	1	0.01-0.300	0.001-0.015	0.00015-0.003	1.05	0.135	0.061
P600L-72-1.0	72 / 80	1.0	0.135	0.225	1	0.01-0.300	0.001-0.015	0.00015-0.003	1.88	0.240	0.108
P600L-72-1.5	72 / 80	1.5	0.097	0.163	1	0.01-0.300	0.001-0.015	0.00015-0.003	4.22	0.540	0.243
P600L-72-2.0	72 / 80	2.0	0.045	0.075	1	0.01-0.300	0.001-0.015	0.00015-0.003	7.50	0.960	0.432
P600L-72-3.0	72 / 80	3.0	0.0262	0.0438	1	0.01-0.300	0.001-0.015	0.00015-0.003	16.9	2.16	0.972
P600L-72-4.0	72 / 80	4.0	0.0195	0.0325	1	0.01-0.300	0.001-0.015	0.00015-0.003	30.0	3.84	1.73
P600L-72-5.0	72 / 80	5.0	0.0135	0.0225	1	0.01-0.300	0.001-0.015	0.00015-0.003	46.9	6.00	2.70
P600L-72-6.0	72 / 80	6.0	0.0112	0.0188	1	0.01-0.300	0.001-0.015	0.00015-0.003	67.5	8.64	3.89
P600L-72-7.5	72 / 80	7.5	0.0082	0.0138	1	0.01-0.300	0.001-0.015	0.00015-0.003	105	13.5	6.08
P600L-72-10.0	72 / 80	10.0	0.0063	0.0107	2	0.01-0.300	0.001-0.015	0.00015-0.003	188	24.0	10.8
P600L-72-15.0	72 / 80	15.0	0.0040	0.0070	2	0.01-0.300	0.001-0.015	0.00015-0.003	422	54.0	24.3
P600L-125-1/8	125 / 135	1/8	6.375	10.625	1	0.005-30.0	0.0005-0.015	0.000075-0.003	2.93	0.004	0.002
P600L-125-1/4	125 / 135	1/4	1.875	3.125	1	0.005-30.0	0.0005-0.015	0.000075-0.003	11.7	0.015	0.007
P600L-125-3/8	125 / 135	3/8	1.125	1.875	1	0.01-0.300	0.001-0.015	0.00015-0.003	0.264	0.034	0.015
P600L-125-1/2	125 / 135	1/2	0.675	1.125	2	0.01-0.300	0.001-0.015	0.00015-0.003	0.469	0.060	0.027
P600L-125-3/4	125 / 135	3/4	0.225	0.375	2	0.01-0.300	0.001-0.015	0.00015-0.003	1.05	0.135	0.061
P600L-125-1.0	125 / 135	1.0	0.090	0.270	2	0.01-0.300	0.00075-0.015	0.00010-0.003	1.88	0.240	0.108
P600L-125-1.5	125 / 135	1.5	0.085	0.225	2	0.01-0.300	0.00075-0.015	0.00010-0.003	4.22	0.540	0.243
P600L-125-2.0	125 / 135	2.0	0.045	0.135	2	0.01-0.300	0.00075-0.015	0.00010-0.003	7.50	0.960	0.432
P600L-125-3.0	125 / 135	3.0	0.035	0.105	2	0.01-0.300	0.00075-0.015	0.00010-0.003	16.9	2.16	0.972
P600L-125-4.0	125 / 135	4.0	0.030	0.090	2	0.01-0.300	0.00075-0.015	0.00010-0.003	30.0	3.84	1.73
P600L-125-5.0	125 / 135	5.0	0.022	0.068	2	0.01-0.300	0.00075-0.015	0.00010-0.003	46.9	6.00	2.70
P600L-125-7.5	125 / 135	7.5	0.0165	0.0275	4	0.100-4.00	0.008-0.048	0.0008-0.008	1406	43.2	16.2
P600L-125-10.0	125 / 135	10.0	0.0120	0.0200	4	0.100-4.00	0.008-0.048	0.0008-0.008	2500	76.8	28.8
P600L-125-15.0	125 / 135	15.0	0.0090	0.0130	4	0.100-5.00	0.010-0.060	0.0010-0.010	7030	216	81.0
P600L-50-20.0	50	20.0	0.0025	0.0050	3	0.01-0.300	0.001-0.015	0.00015-0.003	750	96.0	43.2

Notes:
1/ DC Resistance is measured at current levels less than or equal to 10% of rated current.
2/ Overload interrupt times at -55 °C and 250% overload current shall be as follows:
a) Fuses with ratings less then 3/8 amperes shall open in 60 seconds maximum
b) Fuses with ratings from 3/8 to 1.0 ampere shall open in 10 seconds maximum
c) Fuses with ratings greater than 1.0 ampere shall open in 5 seconds maximum.
3/ Maximum I^2T at -55 °C and 250% overload current may be greater than indicated. To calculate maximum I^2T at a case temperature of -55 °C and 250% overload current, multiply the I^2 product by the maximum blow times indicated in Note 2 above.
4/ P600L-125 options are also available as 135 VDC fuses.
5/ P600L-72 options are also available as 80 VDC fuses.
6/ Leads are also available in solder dipped finish and stranded wire.

AEM, Inc.'s SK406 series is a modified lead configuration of the P600L, providing the design engineer additional flexibility of surface mounting the popular P600L series.

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MIL-STD-790